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EXPLANATION OF THE PLATES.

PLATE 1.

PLATE 1.

Map of a part of South America, showing the routes Spix and Martius (1817–1820), of Castelnau (1844–1847), Natterer (1817–1835), Schomburgk (1840–1847), the Thayer Expedition (1865–1866), and the common route along the Amazon.

PART OF
SOUTH AMERICA
SHOWING ROUTES OF

Castelnau ----------

Natterer .....

Schomburgk .....

Spix and Martius -|-|-|-|-|-|-

Thayer Expedition ~~~~~

Common route along the Amazon -o-o-o-o-o-o-

B. MEISEL LITH.

PLATE 2.

PLATE 2.

Fig. 1. Tetragonopterus argenteus Cuvier.
20718 M. C. Z. Length of head 17.5 mm. Villa Bella, Brazil.

Fig. 2. Deuterodon iguape Eigenmann.
9265 I. U. M. *Type.* 110 mm. Iguapé, Southeastern Brazil.

Fig. 3. Hemibrycon guppii Regan.
11326 I. U. M. Trinidad.

Fig. 4. Hollandichtys multifasciatus Eigenmann & Norris.
9288 I. U. M. *Type.* 70 mm. Cubatão, Southeastern Brazil.

Fig. 5. Creatochanes affinis (Günther).
21076 M. C. Z. Head 24 mm. Porto do Moz, Brazil.

Fig. 6. Astyanacinus moorii Fowler.
A. N. S. P. *Cotype.* 102 mm. Chapala Plateau, Brazil.

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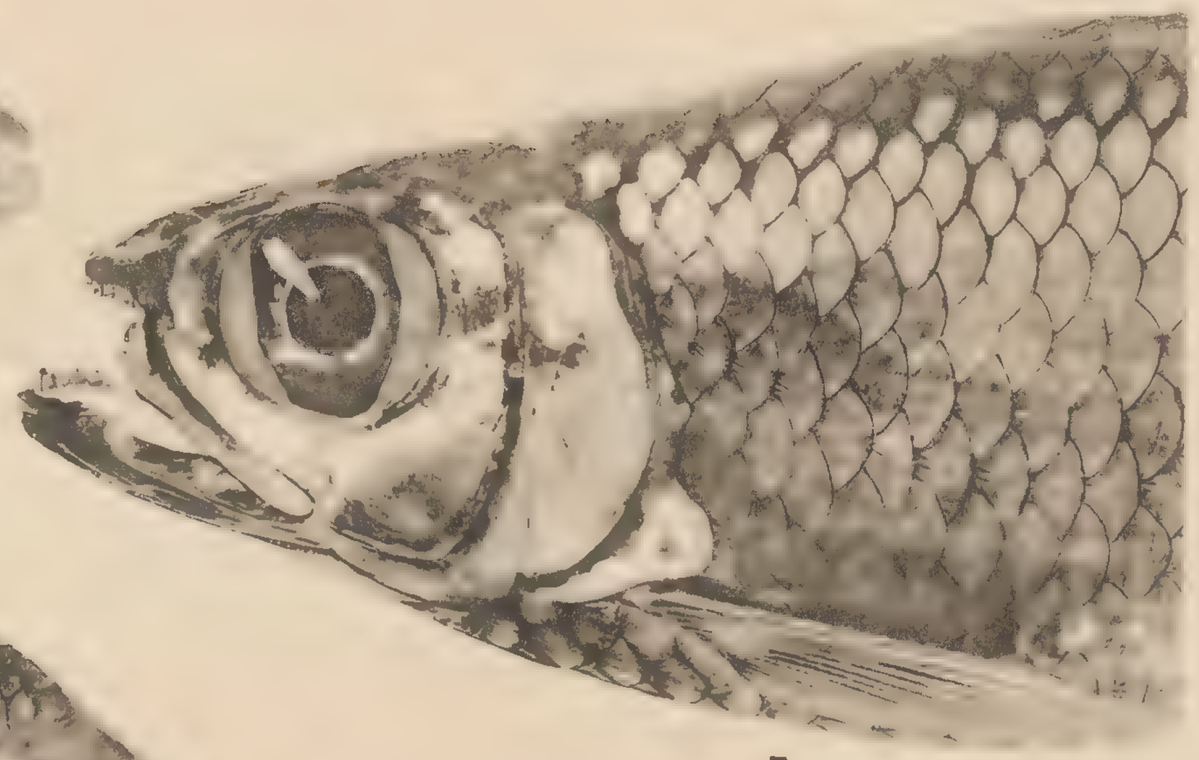

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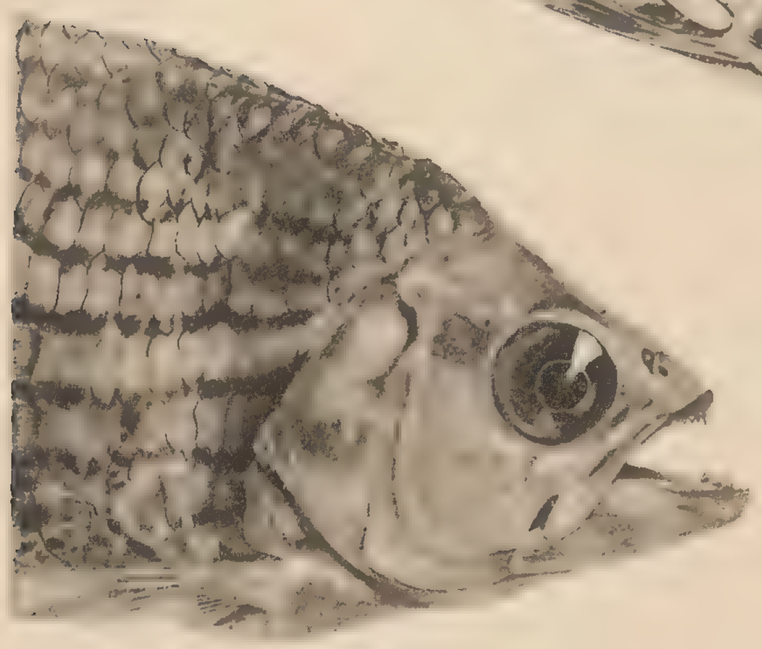

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COCKAYNE, BOSTON

PLATE 3.

PLATE 3.

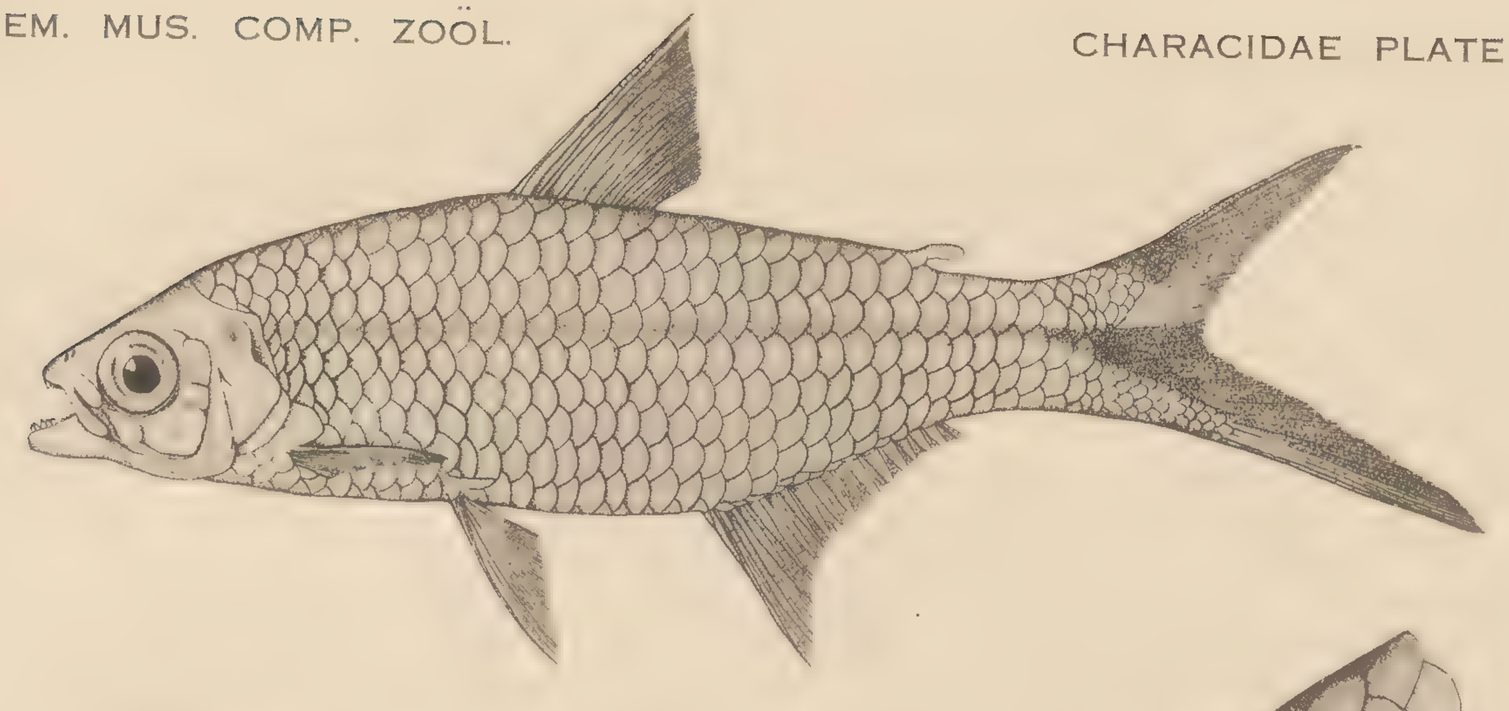
Fig. 1. Entomolepsis steindachneri Eigenmann.
20967 M. C. Z. 86 mm. Iquitos, Peru.

Fig. 2. Scale from near the anal.

Fig. 3. Last scale above the lateral line in Fig. 1.

Fig. 4. Henochilus wheatlandi Garman.
21109 M. C. Z. 415 mm. *Type.* Southeastern Brazil.

Fig. 5. Thayeria obliqua Eigenmann.
M. C. Z. *Type.* Obidos, Brazil.



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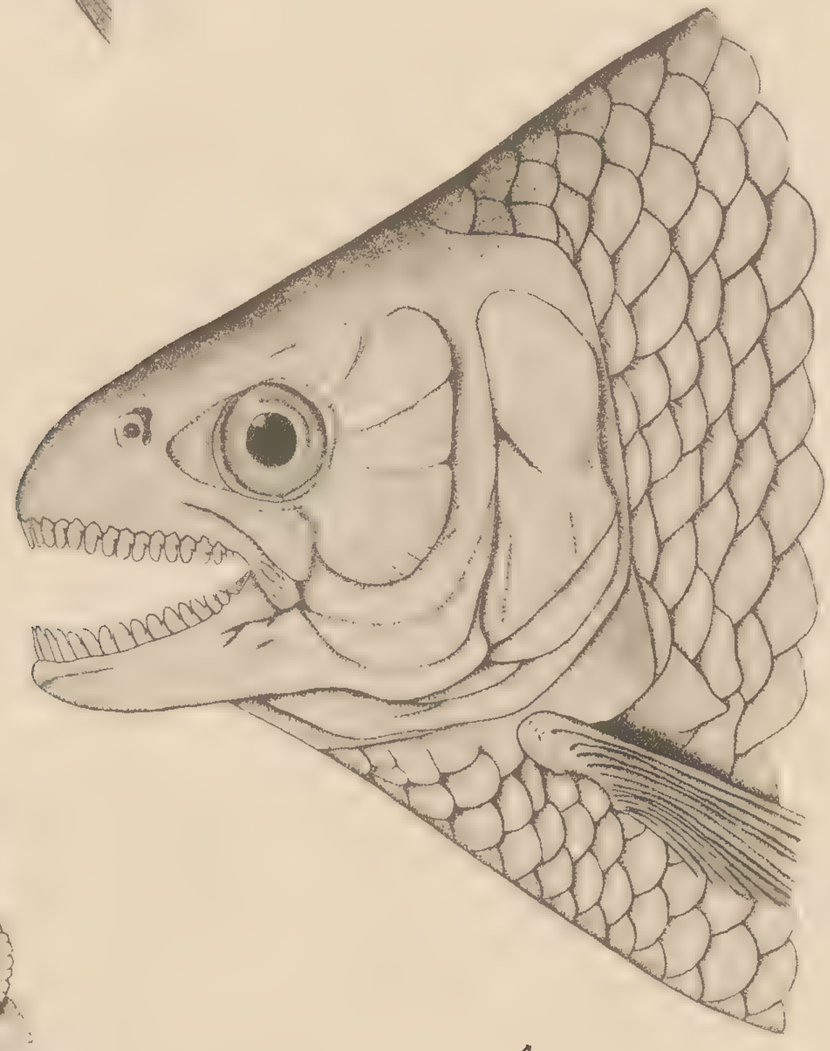

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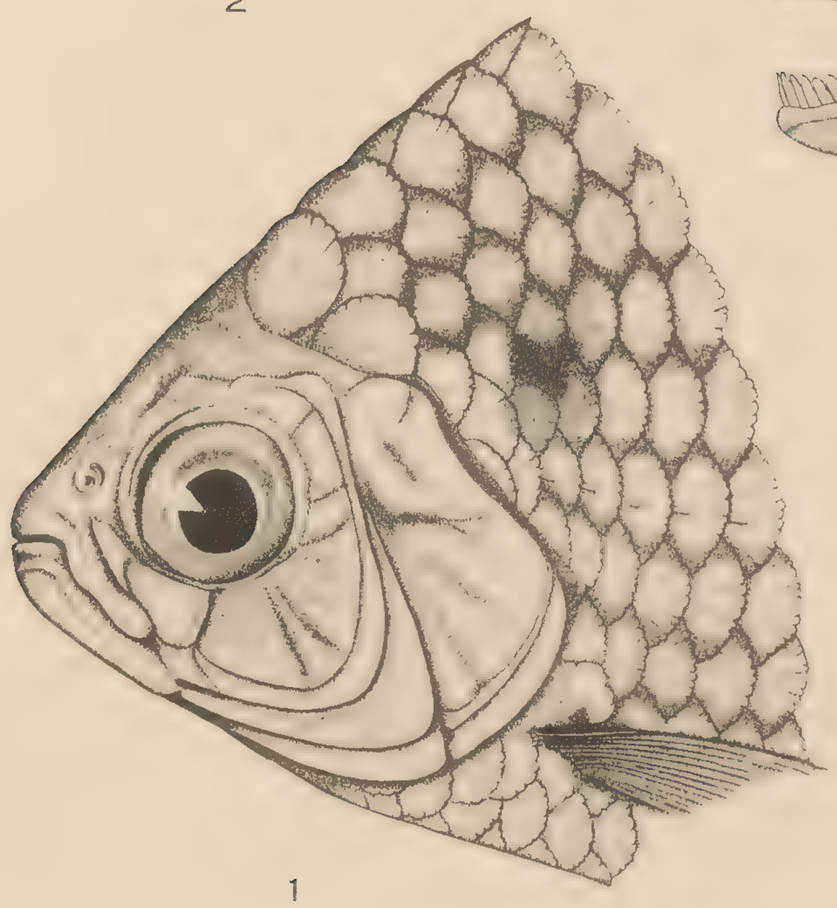

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HELIOTYPE CO. BOSTON

PLATE 4.

PLATE 4.

Fig. 1. Tetragonopterus chalceus Agassiz.
11852 I. U. M. 68.5 mm. Wismar, British Guiana.

Fig. 2. Tetragonopterus argenteus Cuvier.
20718 M. C. Z. 76 mm. Villa Bella, Brazil.

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HELIOTYPE CO. BOSTON

PLATE 5.

PLATE 5.

Fig. 1. Moenkhausia jamesi Eigenmann.
20742 M. C. Z. 72 mm. *Type*. Amazon.

Fig. 2. Moenkhausia latissima Eigenmann.
20767 M. C. Z. 71.5 mm. *Type*. Tabatinga, Brazil.

Fig. 3. Entomolepis steindachneri (Eigenmann).
20967 M. C. Z. 86 mm. Iquitos, Peru.

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COCKAYNE, BOSTON

PLATE 6.

PLATE 6.

Fig. 1. Moenkhausia melogramma Eigenmann.
20825 M. C. Z. About 47 mm. (caudal broken). *Type.* Tabatinga, Brazil.

Fig. 2. Moenkhausia comma Eigenmann.
20972 part, M. C. Z. About 85 mm. (caudal broken). *Type.* Cudajas, Brazil.

Fig. 3. Moenkhausia chrysargyrea (Günther).
11842 I. U. M. 78.5 m. Crab Falls, British Guiana.

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HELIOTYPE CO. BOSTON

PLATE 7.

PLATE 7.

Fig. 1. Moenkhausia barbouri Eigenmann.
20108 M. C. Z. 65 mm. *Type*. Villa Bella, Brazil.

Fig. 2. Moenkhausia megalops Eigenmann.
20723 M. C. Z. 56 mm. (caudal broken). Gurupa, Brazil.

Fig. 3. Moenkhausia ovalis (Günther). From *Type* in British Museum. Xeberos, Brazil.

Fig. 4. Moenkhausis oligolepis (Günther).
11835 I. U. M. 58 mm. Holmia, British Guiana.

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HELIOTYPE CO. BOSTON

PLATE 8.

PLATE 8.

Fig. 1. Moenkhausia colletti (Steindachner).
11809 I. U. M. 66 mm. Tumatumari, British Guiana.

Fig. 2. Moenkhausia lepidura lepidura (Kner).
20788 M. C. Z. 80 mm. Santarem, Brazil.

Fig. 3. Moenkhausia dichroura (Kner).
11862 I. U. M. 63 mm. Konawaruk, British Guiana.

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COCKAYNE, BOSTON

PLATE 9.

PLATE 9.

Fig. 1. Moenkhausia cotinho Eigenmann.
11819 I. U. M. 55.5. Crab Falls, British Guiana.
Fig. 2. Moenkhausia ceros Eigenmann.
20955 M. C. Z. 50 mm. (caudal broken). *Type.* Lake Hyanuary, Brazil.
Fig. 3. Moenkhausia copei (Steindachner).
11820 I. U. M. 55 mm. Rockstone, British Guiana.

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COCKAYNE, BOSTON

PLATE 10.

PLATE 10.

Fig. 1. Knodus chapadae (Fowler).
21829 A. N. S. P. *Paratype* 44 mm. Chapada, Brazil.
Fig. 2. Knodus breviceps (Eigenmann).
20692 M. C. Z. 84 mm. *Cotype.* Goyaz, Brazil.
Fig. 3. Knodus moenkhausii (Eigenmann & Kennedy).
20760 M. C. Z. 41 mm. Tabatinga, Brazil.
Fig. 4. Knodus heteresthes (Eigenmann).
20862 M. C. Z. 51 mm. *Cotype.* Tapajos, Brazil.

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PLATE 11.

PLATE 11.

Fig. 1. Gymnocorymbus ternetzi (Boulenger).
11435 I. U. M. 39 mm. to base of caudal. *Cotype.* Descalvados, Paraguay.
Fig. 2. Gymnocorymbus thayeri Eigenmann.
19242 M. C. Z. 40 mm. *Type.* Amazon.

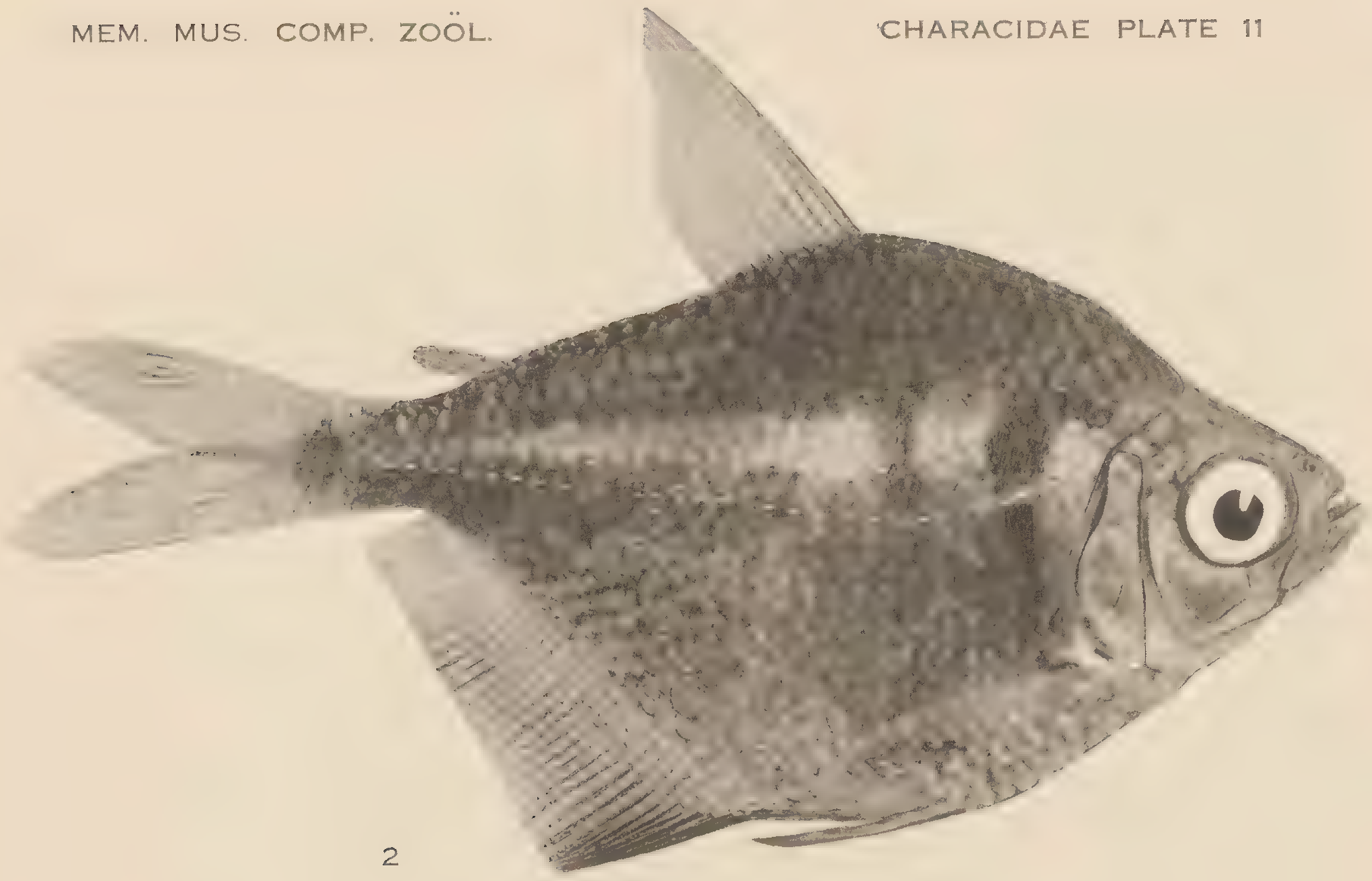

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PLATE **12.**

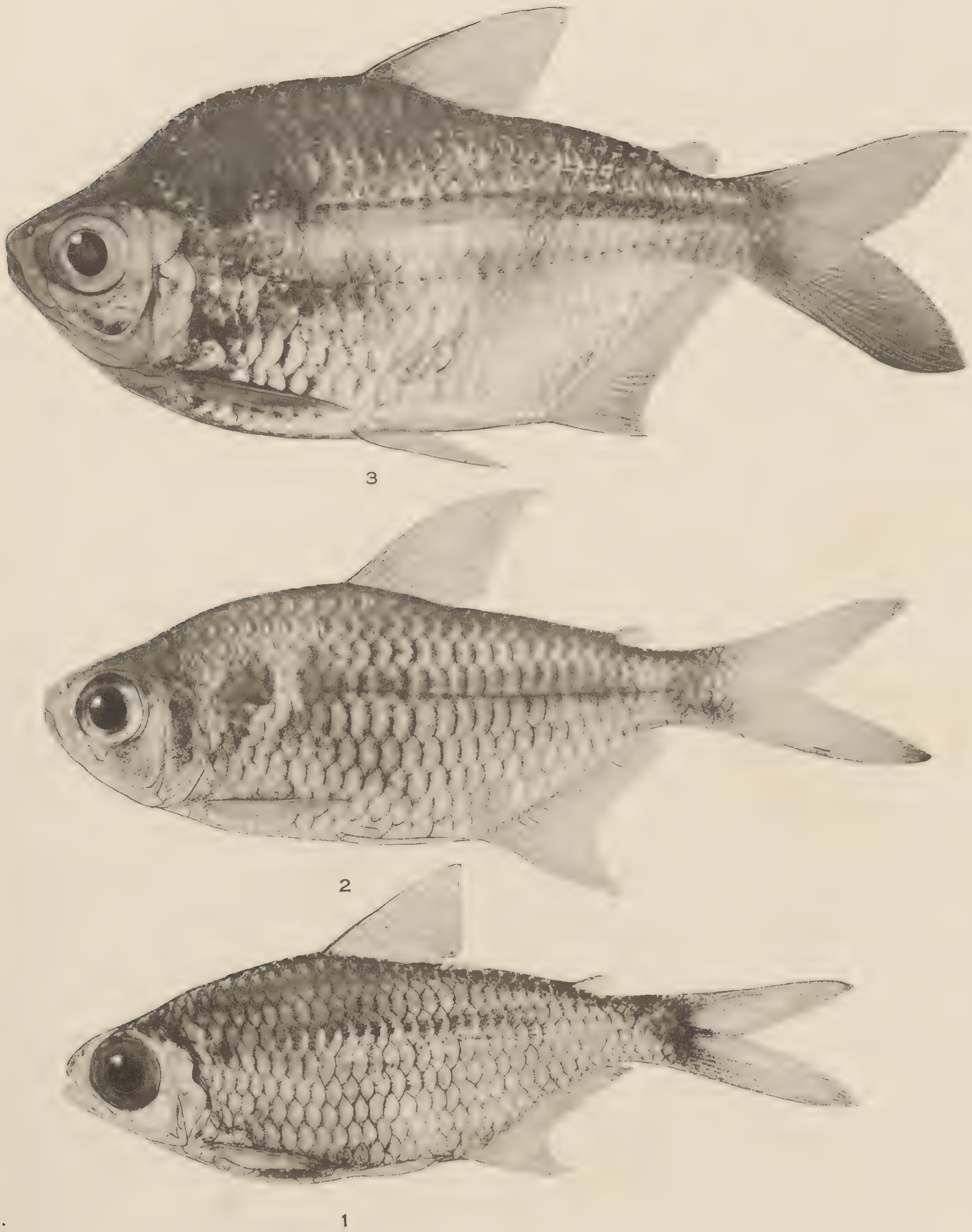
PLATE 12.

(Mem. Carnegie Mus., **5**, Plate 47.)

Fig. 1. Moenkhausia shideleri Eigenmann.
1012 C. M. 65 mm. *Type.* Bartica, British Guiana.

Fig. 2. Moenkhausia browni Eigenmann.
1004 C. M. 66 mm. *Type.* Aruataima Falls, British Guiana.

Fig. 3. Moenkhausia grandisquamis (Müller and Troschel).
1350 C. M. 100 mm. Crab Falls, British Guiana.



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HELIOTYPE CO., BOSTON

PLATE **13.**

PLATE 13.

Fig. 1. Pristella aubynei Eigenmann. (Mem. Carnegie mus., **5**, Plate 45, fig. 4).
1042 C. M. 50 mm. *Type.* Lama Stop-Off, British Guiana.
Fig. 2. Pristella riddlei (Meek). (Mem. Carnegie mus., **5**, Plate 45, fig. 3).
1309 C. M. 44.5 mm. Botanic Garden, Georgetown, British Guiana.
Fig. 3–5. Markiana nigripinnis (Perugia). (Steindachner, Sitzungsb. K. akad. wiss., **100**, Plate 3).
La Plata Basin.

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HELIOTYPE CO., BOSTON

PLATE 14.

PLATE 14.

Fig. 1. Moenkhausia doceana (Steindachner).
20909 M. C. Z. 102 mm. Rio Doce, Brazil. (The scales are mostly lost from the caudal and are not indicated by the artist).

Fig. 2. Moenkhausia costae (Steindachner).
3722 C. M. 48 mm. Penedo, Brazil.

Fig. 3. Moenkhausia bondi (Fowler). (Mem. Carnegie mus., **5**, Plate 46, fig. 1).
2207 C. M. 51 mm. *Type* of *M. profunda* Eigenmann. Issorora Rubber Plantation, British Guiana.

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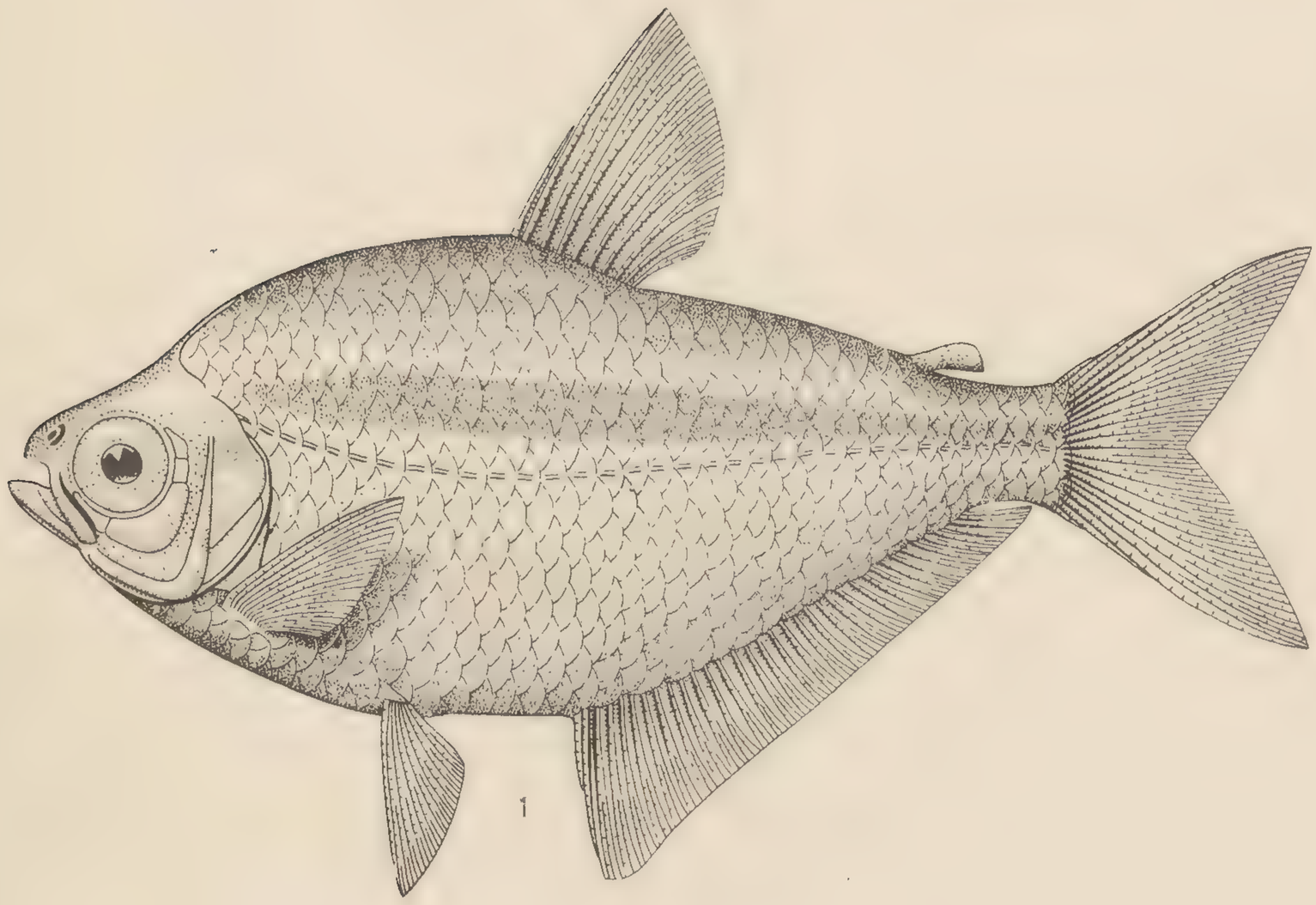

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PLATE 15.

PLATE 15.

Fig. 1. Moenkhausia dichroura (Kner).
3699 C. M. 90 mm. Puerto Suarez, Bolivia.

Fig. 2. Moenkhausia intermedia Eigenmann.
3702 C. M. 60 mm. Salto de Avanhandava, Southeastern Brazil.

Fig. 3. Moenkhausia lepidura hasemani Eigenmann.
3746 C. M. 58 mm. *Type*. Santarem, Brazil.

Fig. 4. Moenkhausia collettii (Steindachner).
3742 C. M. 55 mm. Maciél, Brazil.

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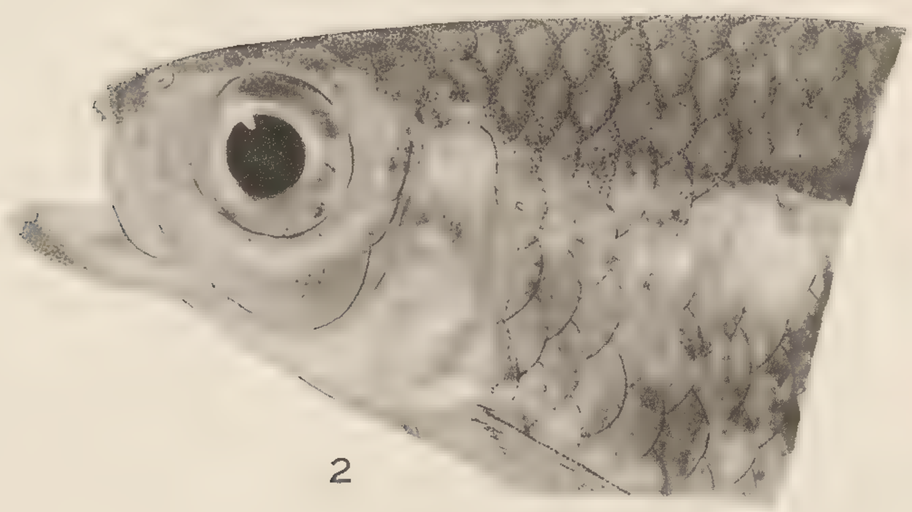

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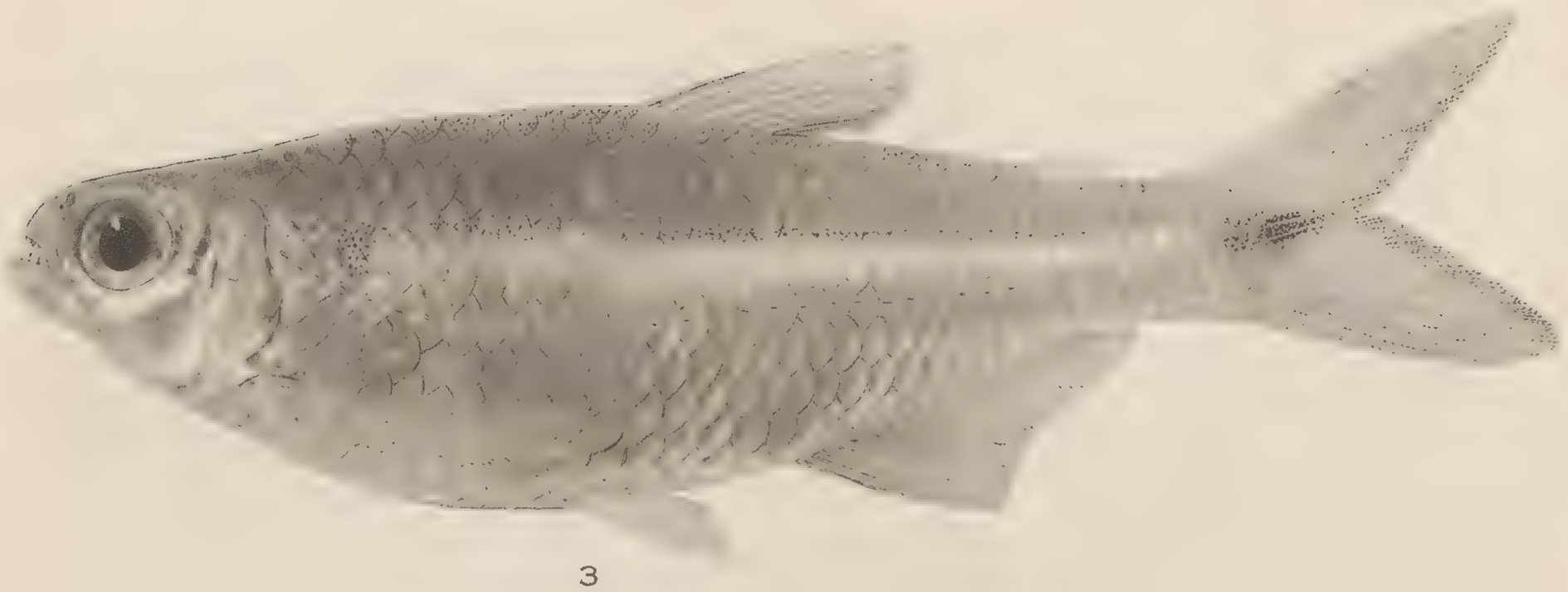
PLATE 16.

PLATE 16.

Fig. 1. Moenkhausia sanctae filomenae (Steindachner).
3312 C. M. 45 mm. Caceres, Brazil.

Fig. 2. Moenkhausia *sanctae filomenae* (Steindachner).
3311 C. M. 50 mm. Caceres, Brazil.

Fig. 3. Knodus victoriae (Steindachner).
3751 C. M. 53 mm. Lagoa Paranagua, Brazil.



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HELIOTYPE CO., BOSTON

PLATE 17.

PLATE 17.

Fig. 1. Hemigrammus ulreyi (Boulenger).
3050 C. M. 44 mm. Jauru, Brazil.
Fig. 2. Hemigrammus coeruleus Durbin.
20801 M. C. Z. 40 mm. *Type*. Manacapura, Brazil.
Fig. 3. Hemigrammus elegans (Steindachner).
20869 M. C. Z. 35 mm. Tapajos, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 18

PLATE 18.

Fig. 1. Hemigrammus nanus (Lütken).
44958 U. S. N. M. *Cotype.* 47 mm. Lagoa Santa, Brazil.
Fig. 2. Hemigrammus levis Durbin.
20738 M. C. Z. 47 mm. *Type.* Amazon.
Fig. 3. Hemigrammus micropterus Meek.
10802 I. U. M. 36 mm. *Cotype.* Los Castillas, Venezuela.
Fig. 4. Hemigrammus hyanuary Durbin.
20955 M. C. Z. 37.5 mm. (To middle caudal rays). *Cotype.* Hyanuary, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 19.

PLATE 19.

Fig. 1. Hemigrammus matei Eigenmann.
11438 I. U. M. 43 mm. *Type.* Argentina.
Fig. 2. Hemigrammus tridens Eigenmann.
11262 I. U. M. 20 mm. (exclusive of caudal). *Type.* Arroyo Pypucu, Paraguay.
Fig. 3. Hemigrammus ocellifer (Steindachner).
20774 M. C. Z. 33 mm. Tabatinga, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 20.

PLATE 20.

Fig. 1. Hemigrammus marginatus Ellis. (Ann. Carnegie mus., **8**, Plate 3).
3053 C. M. 38 mm. *Type.* Queimadas, Brazil.
Fig. 2. Hemigrammus schmardae (Steindachner).
—— M. C. Z. 22 mm. to end of middle caudal rays. Manaos, Brazil.
Fig. 3. Hemigrammus cupreus Durbin.
20952 M. C. Z. 48 mm. *Cotype.* Jatuarana, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 21.

PLATE 21.

(Mem. Carnegie mus., **5**, Plate 48).

Fig. 1. Hemigrammus orthus Durbin.
1477 C. M. 28 mm. *Type.* Tukeit, British Guiana.
Fig. 2. Hemigrammus ocellifer (Steindachner).
1455 C. M. 40 mm. Gluck Island, British Guiana.
Fig. 3. Hemigrammus rodwayi Durbin.
1450 C. M. 46 mm. *Type.* Georgetown, British Guiana.
Fig. 4. Hemigrammus erythrozonus Durbin.
1448 C. M. 32 mm. *Type.* Erukin, British Guiana.
Fig. 5. Hemigrammus unilineatus (Gill).
1446 C. M. 41 mm. Wismar, British Guiana.

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HELIOTYPE CO., BOSTON

PLATE 22.

PLATE 22.

(Mem. Carnegie mus., **5**, Plate 49).

Fig. 1. Hyphessobrycon stictus Durbin.
1197 C. M. 38 mm. *Type.* Lama Stop-Off, British Guiana.
Fig. 2. Hemigrammus analis Durbin.
1466 C. M. 35 mm. *Type.* Rockstone, British Guiana.
Fig. 3. Hyphessobrycon minor Durbin.
1189 C. M. 19 mm. *Type.* Konawaruk, British Guiana.
Fig. 4. Hyphessobrycon gracilis (Reinhardt).
1247 C. M. 24 mm. Gluck Island, British Guiana.
Fig. 5. Hemigrammus cylindricus Durbin.
1461 C. M. 57 mm. *Type.* Tumatumari, British Guiana.
Fig. 6. Hyphessobrycon minimus Durbin.
1193 C. M. 18 mm. *Type.* Cane Grove Corner, British Guiana.
Fig. 7. Hemigrammus iota Durbin.
1458 C. M. 18 mm. *Type.* Gluck Island, British Guiana.

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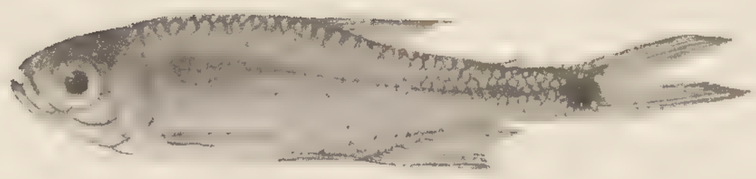

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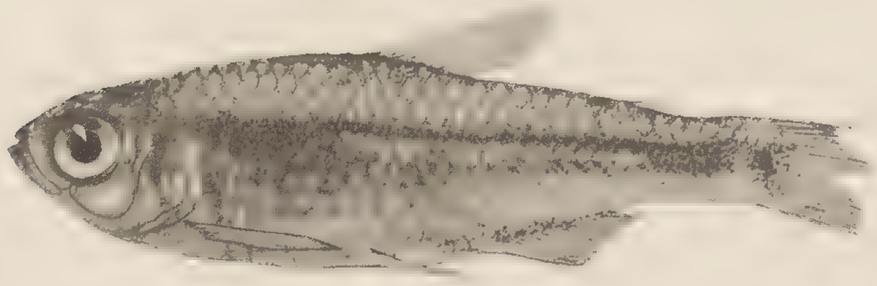

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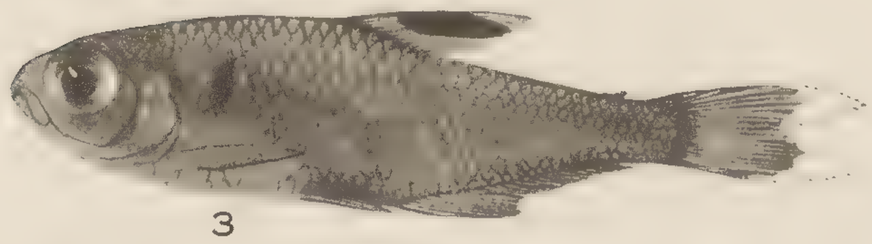

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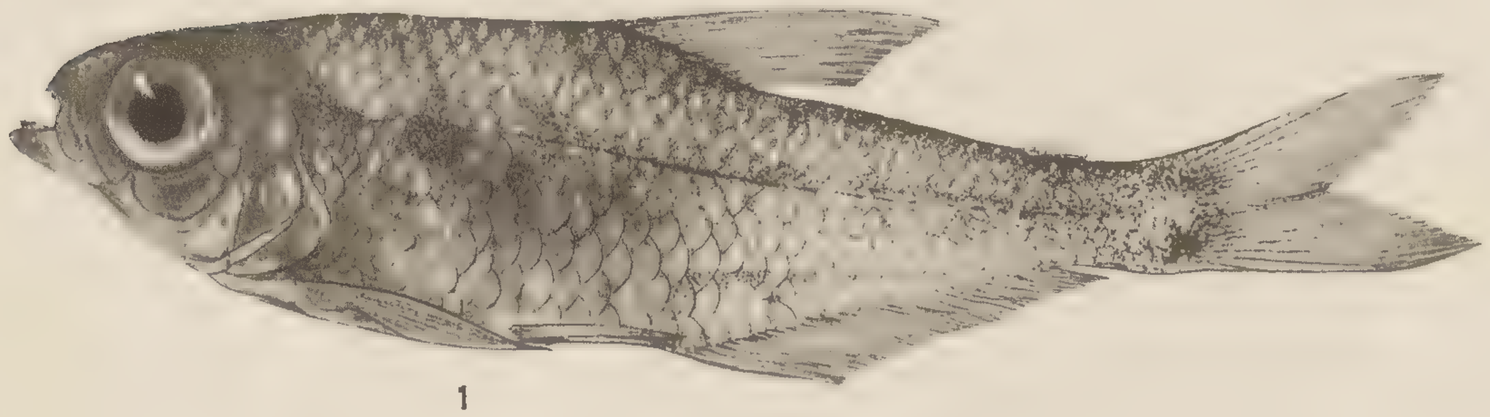

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HELIOTYPE CO., BOSTON

PLATE 23.

PLATE **23**.

(Mem. Carnegie mus., **5**, Plate 50).

Fig. 1. Creatochanes caudomaculatus (Günther).
1385 C. M. 100 mm. Tumatumari, British Guiana.
Fig. 2. Creatochanes melanurus (Bloch).
1393 C. M. 96 mm. Malali, British Guiana.
Fig. 3. Creatochanes affinis (Günther).
1407 C. M. 96 mm. Tumatumari, British Guiana.
Fig. 4. Hyphessobrycon eos Durbin.
1194 C. M. 36 mm. *Type.* Creek near Potaro Landing, British Guiana.
Fig. 5. Hyphessobrycon rosaceus Durbin.
1190 C. M. 35 mm. *Type.* Gluck Island, British Guiana.

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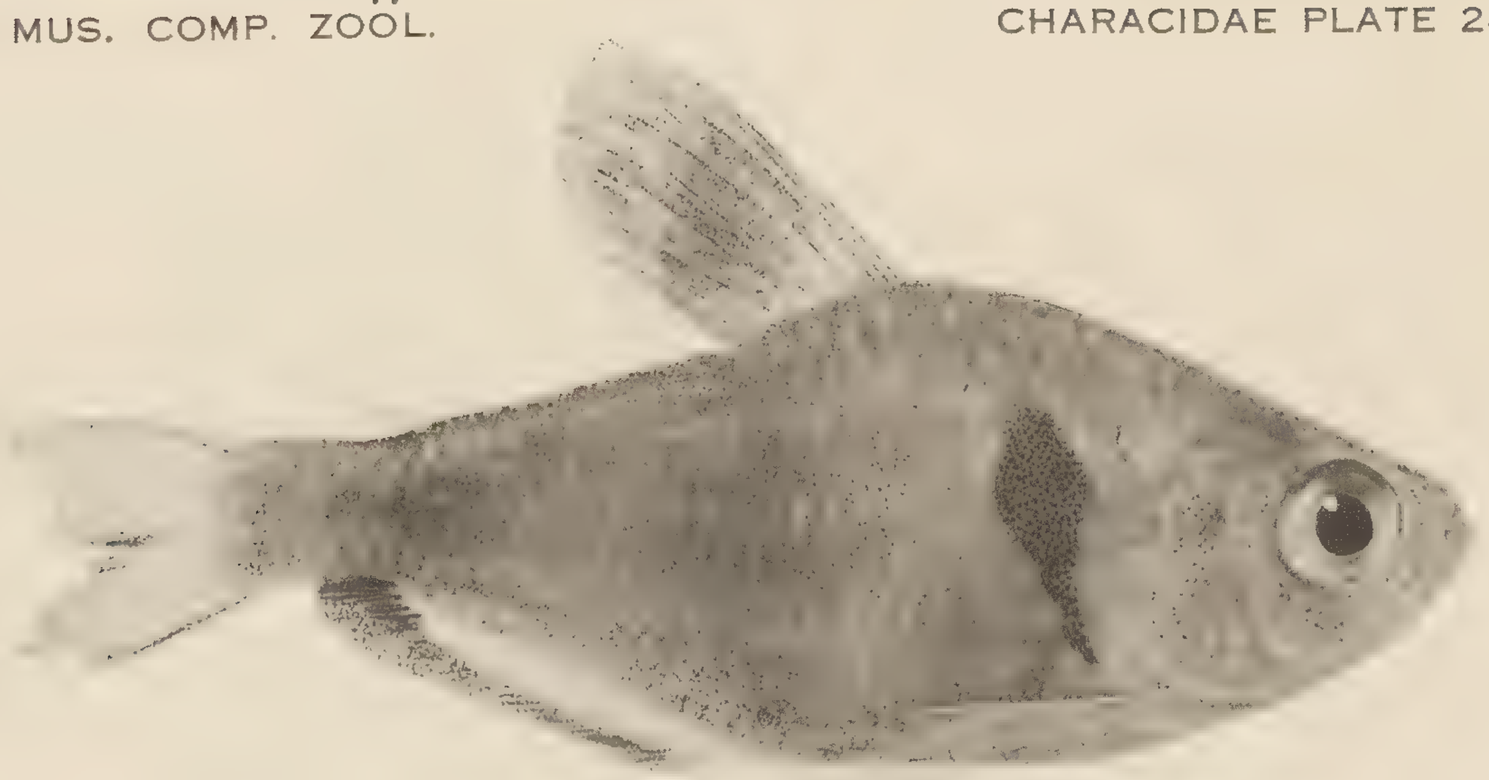
HELIOTYPE CO., BOSTON

PLATE 24.

PLATE 24.

Fig. 1. Hyphessobrycon compressus (Meek).
10929 I. U. M. 44 mm. Perez, Mexico.
Fig. 2. Hyphessobrycon milleri Durbin.
11255 I. U. M. 40 mm. *Type.* Los Amates, Guatemala.
Fig. 3. Hyphessobrycon callistus (Boulenger).
10039 I. U. M. 33 mm. Arroyo Trementina, Paraguay.



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HELIOTYPE CO., BOSTON

PLATE 25.

PLATE 25.

Fig. 1. Hyphessobrycon serpae Durbin.
20985 M. C. Z. 26 mm. *Type.* Serpa, Brazil.
Fig. 2. Hypessobrycon copelandi Durbin.
20771 M. C. Z. 35.5 mm. *Cotype.* Tabatinga, Brazil.
Fig. 3. Hyphessobrycon bentosi Durbin.
20842 M. C. Z. 38 mm. *Cotype.* Obidos, Brazil.

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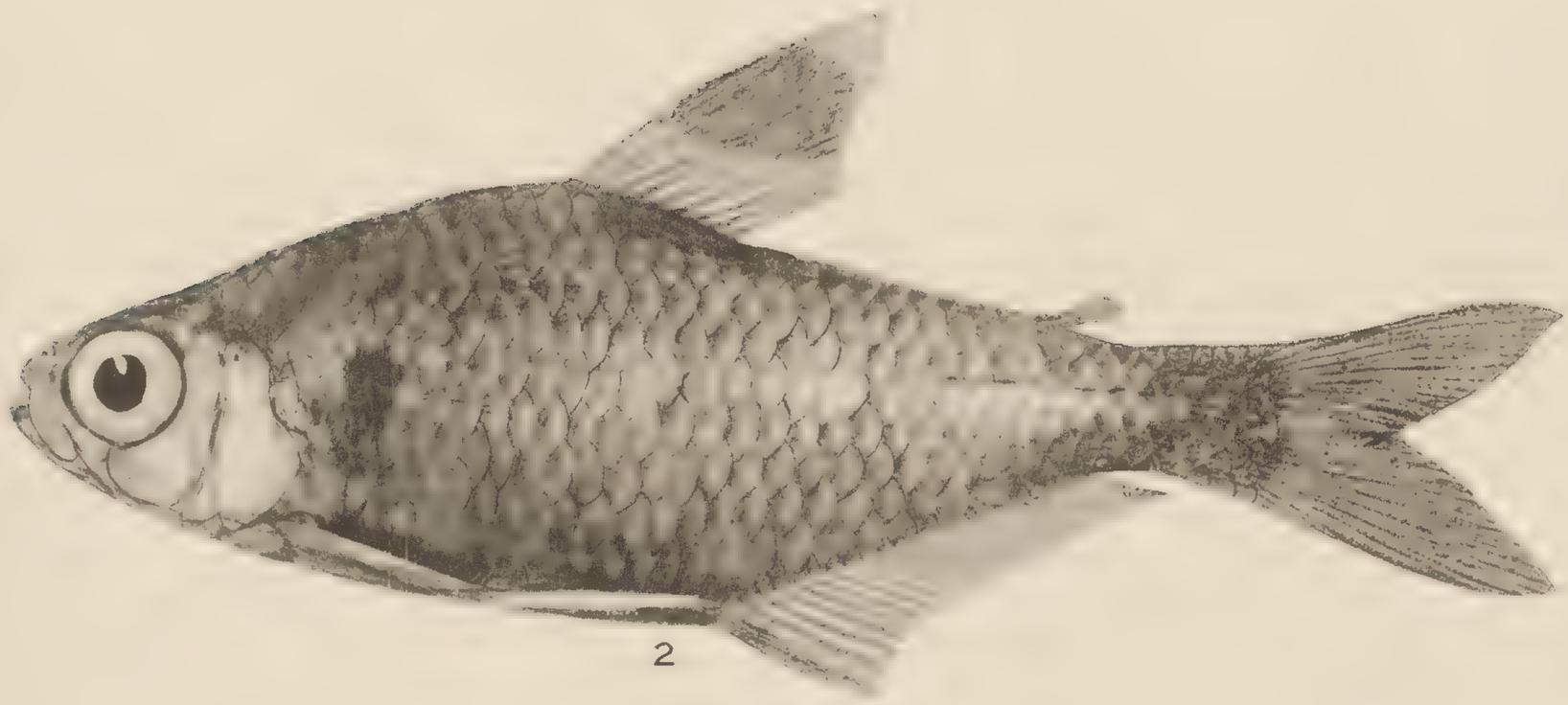

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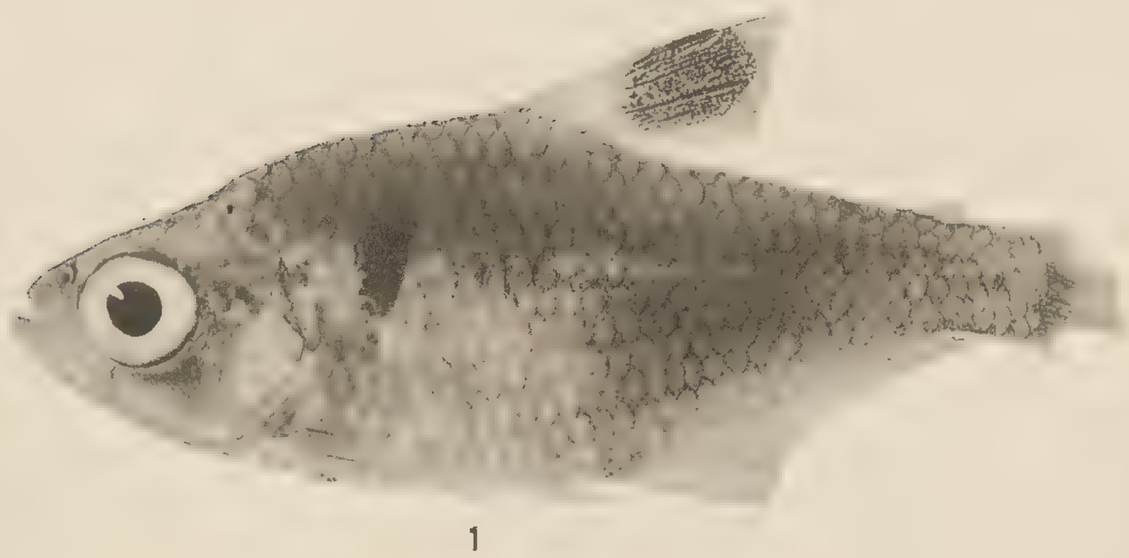

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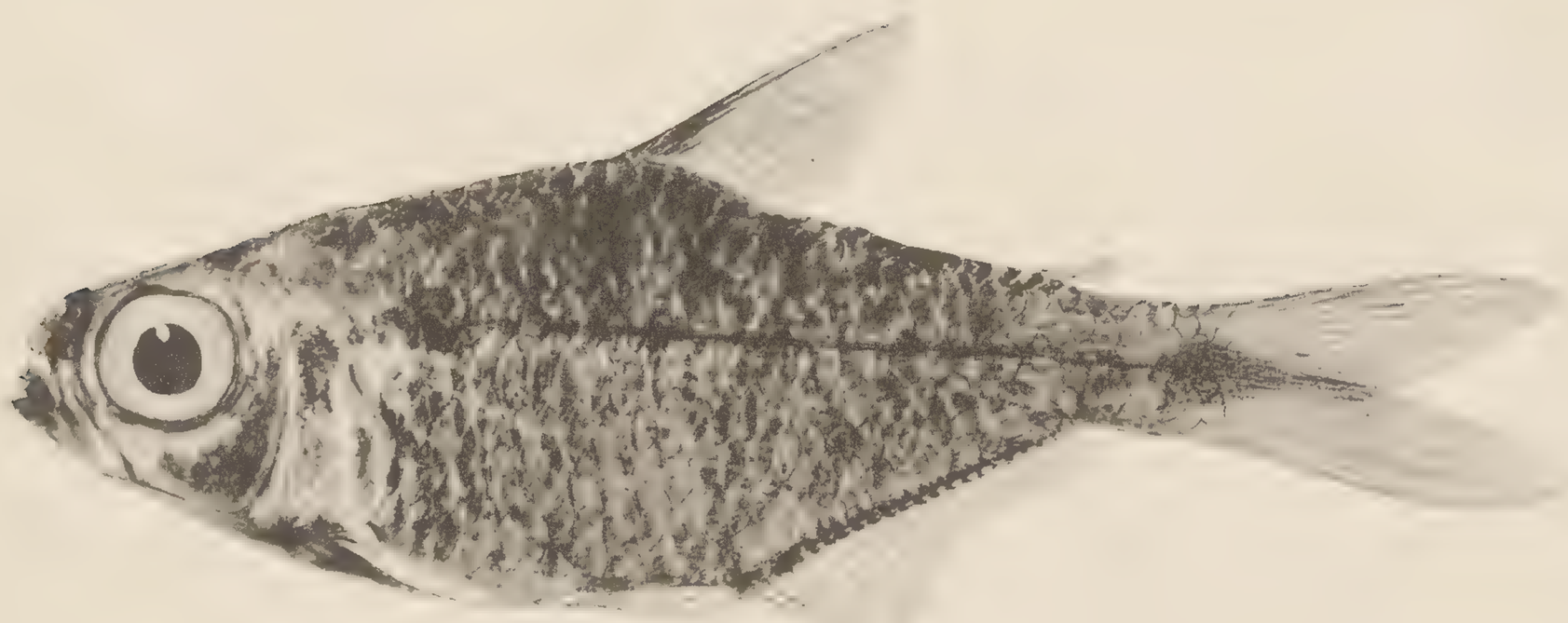
HELIOTYPE CO., BOSTON

PLATE 26.

PLATE 26.

Fig. 1. Hyphessobrycon panamensis Durbin.
20688 M. C. Z. 31 mm. *Type.* Panama.
Fig. 2. Hyphessobrycon gracilis (Reinhardt).
21008 M. C. Z. 30 mm. Brazil.
Fig. 3. Hyphessobrycon riddlei (Meek).
Field Museum. 38 mm. *Type.* Los Castillas, Venezuela.
Fig. 4. Hyphessobrycon melazonatus Durbin.
20737 M. C. Z. 38 mm. *Type.* Lago do Maximo, Brazil.



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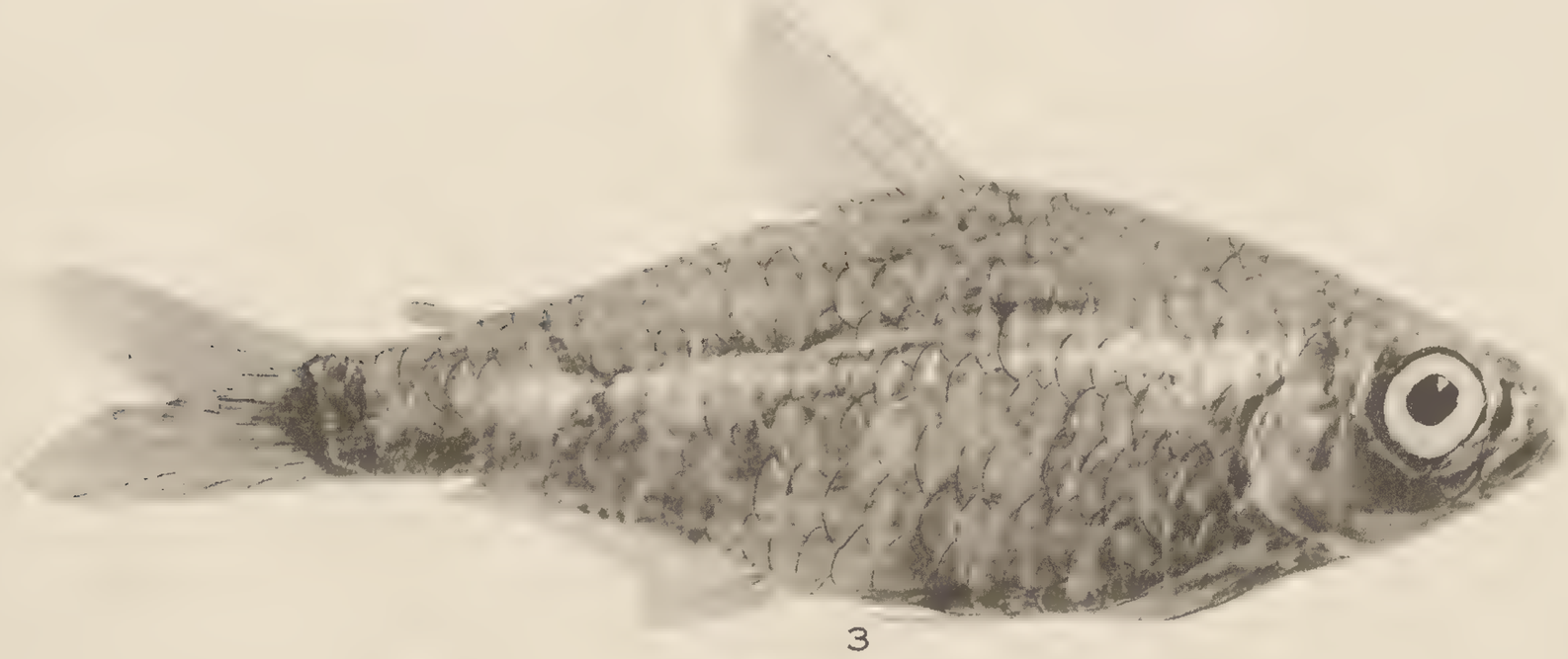

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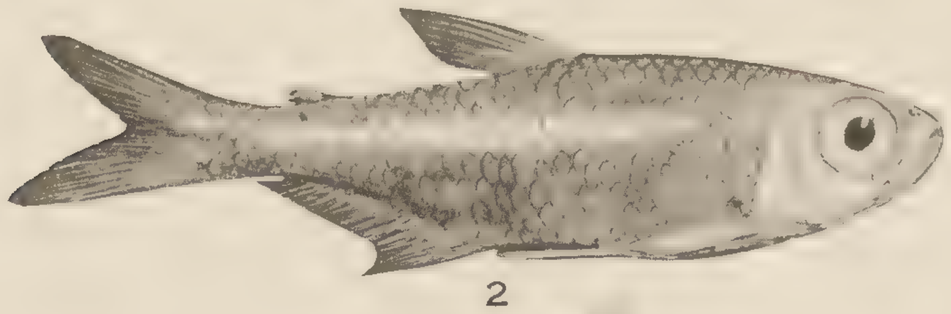

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PLATE **27.**

PLATE 27.

Fig. 1, 2. Hyphessobrycon inconstans (Eigenmann & Ogle).
34591 U. S. N. M. *Type, Paratype.* Para?, Brazil.
Fig. 3. Hyphessobrycon santae (Eigenmann).
3034 C. M. 58 mm. Mogy das Cruzes, Southeastern Brazil.

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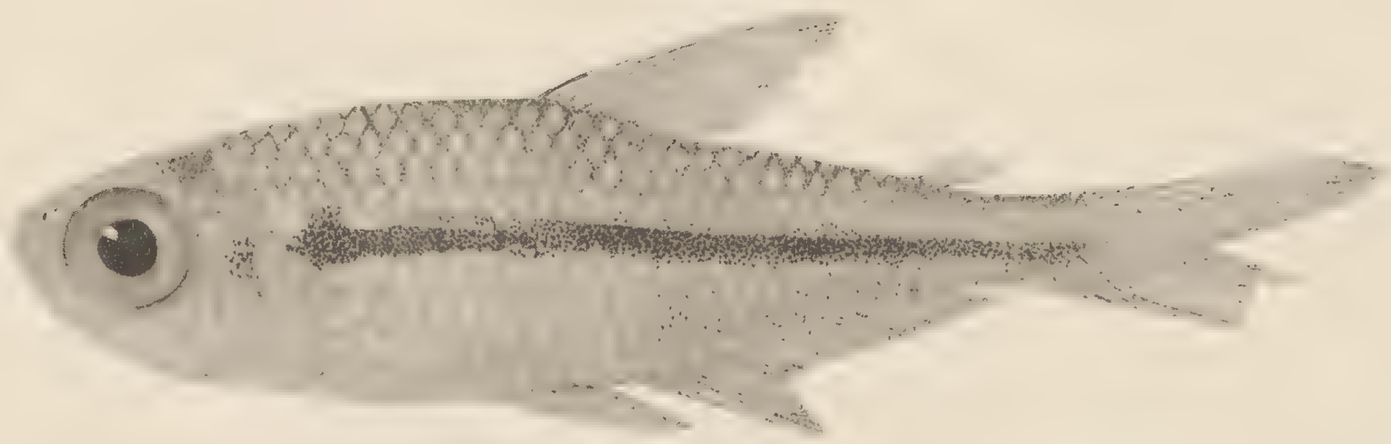
HELIOTYPE CO., BOSTON

PLATE 28.

PLATE 28.

Fig. 1. Hyphessobrycon anisitsi (Eigenmann).
3016 C. M. 42 mm. Miguel Calmon, Brazil.
Fig. 2. Hyphessobrycon lütkeni (Boulenger).
4890 I. U. M. 65 mm. Rio Grande do Sul, Brazil.
Fig. 3. Hyphessobrycon heterorhabdus (Ulrey).
3004 C. M. 30 mm. Bragança, Brazil.



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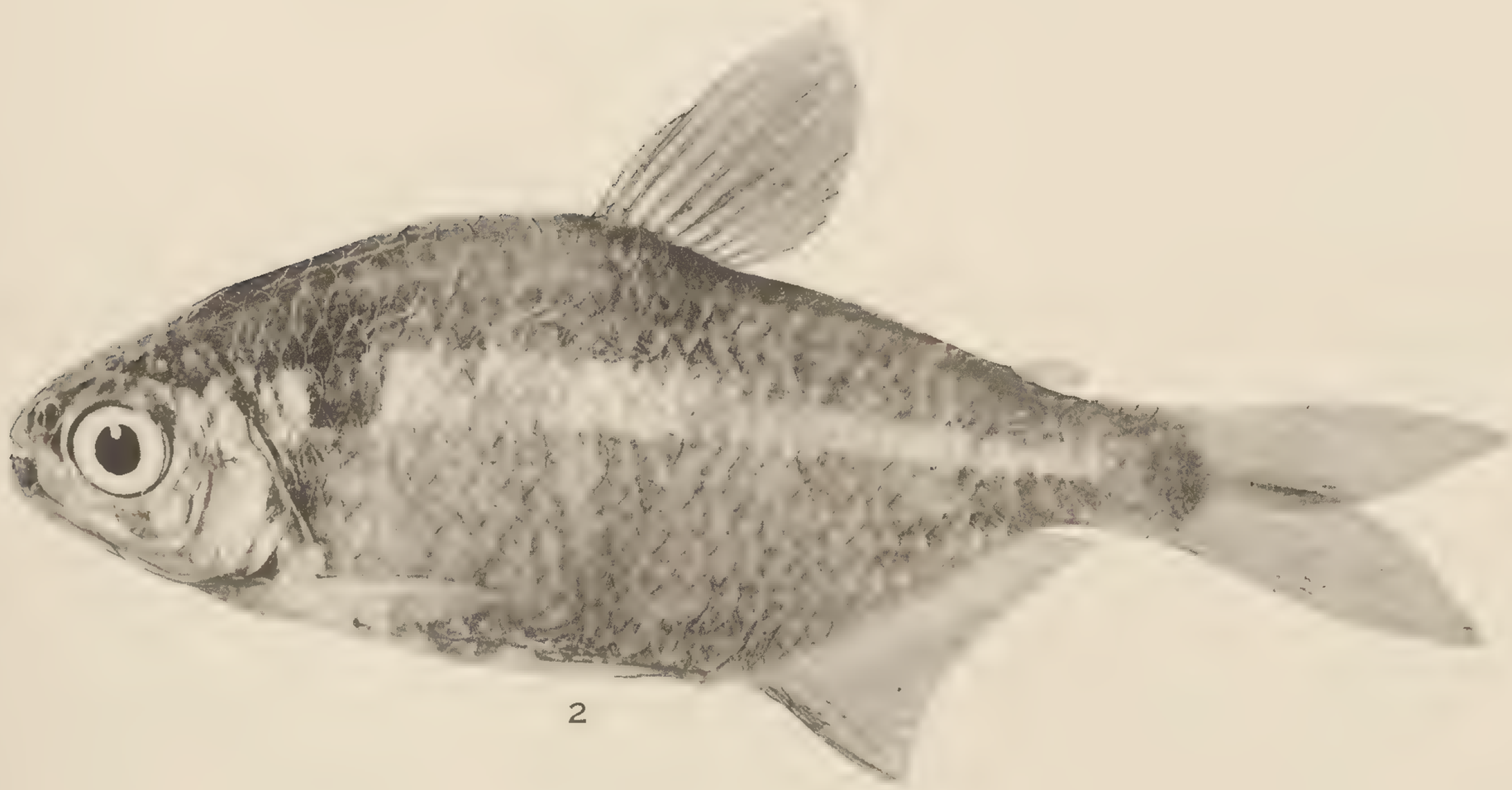

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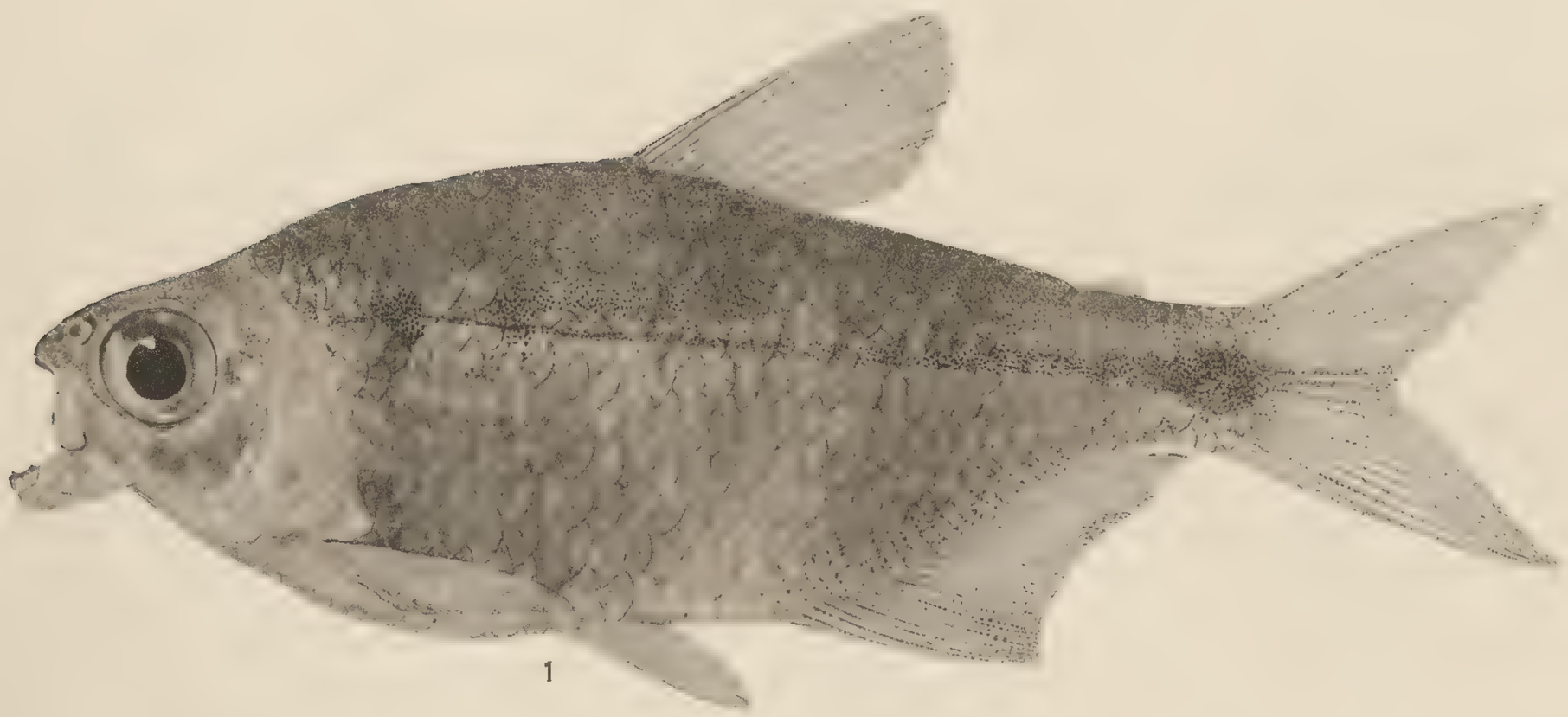

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HELIOTYPE CO., BOSTON

PLATE 29.

PLATE 29.

Fig. 1. Hyphessobrycon parvellus Ellis. (Ann. Carnegie mus., **8**, Plate 2).
2932 C. M. 29 mm. *Paratype.* Queimadas, Brazil.
Fig. 2. Hyphessobrycon reticulatus Ellis. (Ann. Carnegie mus., **8**, Plate 2).
3018 C. M. 48 mm. *Type.* Campos, Brazil.
Fig. 3. Hyphessobrycon taurocephalus Ellis. (Ann. Carnegie mus., **8**, Plate 1).
3007 C. M. 55 mm. *Type.* Serrinha Parana, Southeastern Brazil.

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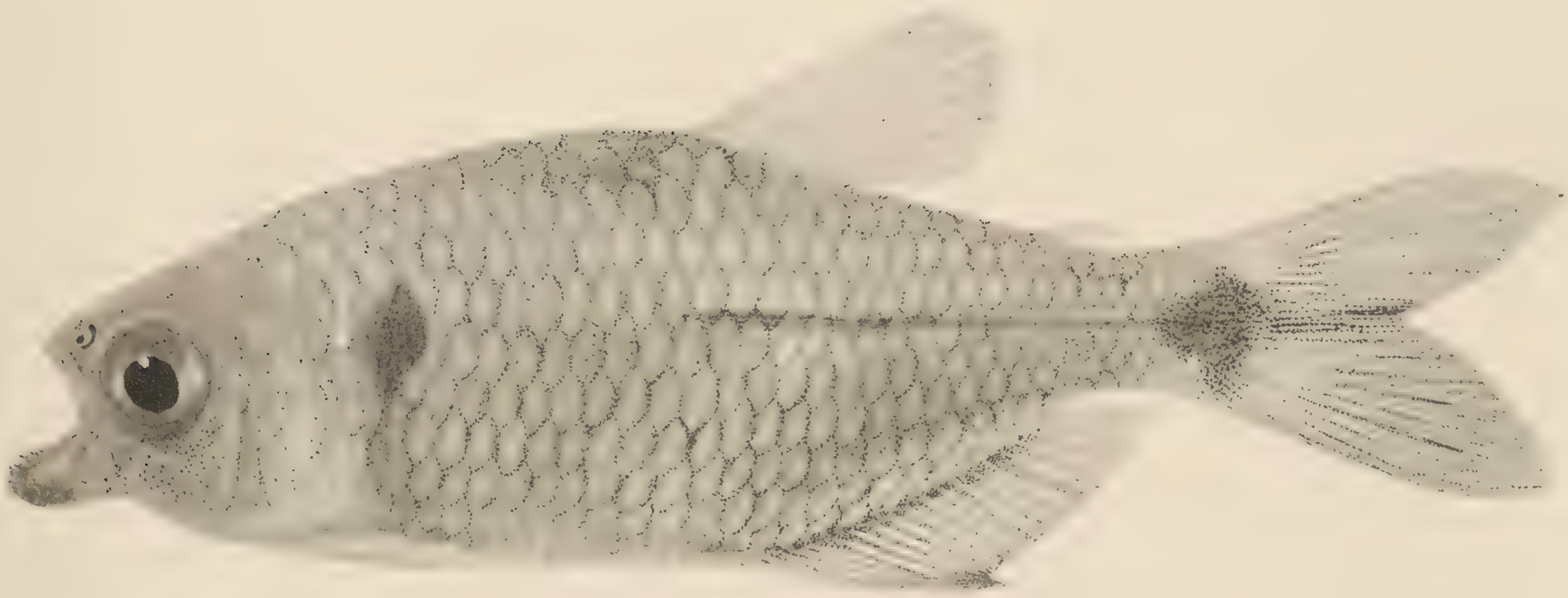

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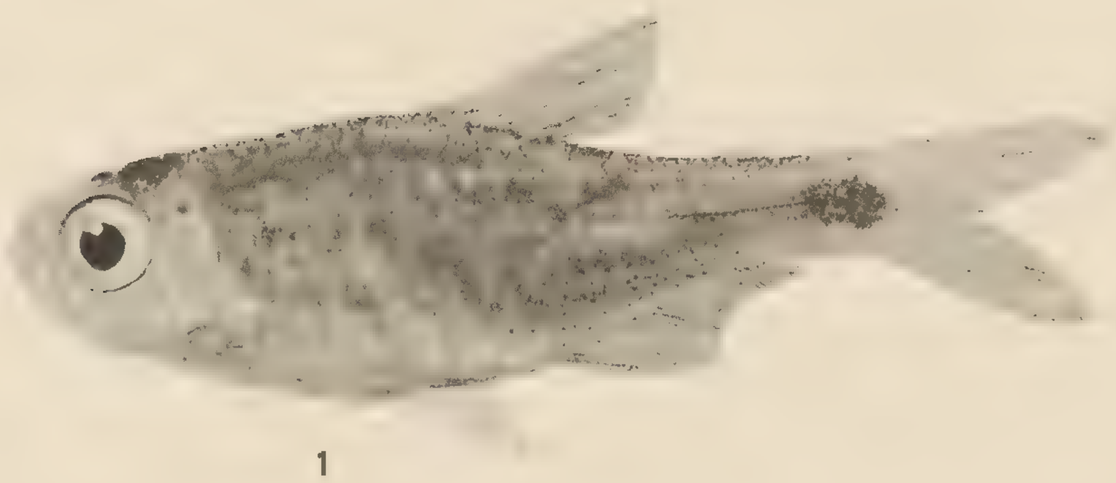

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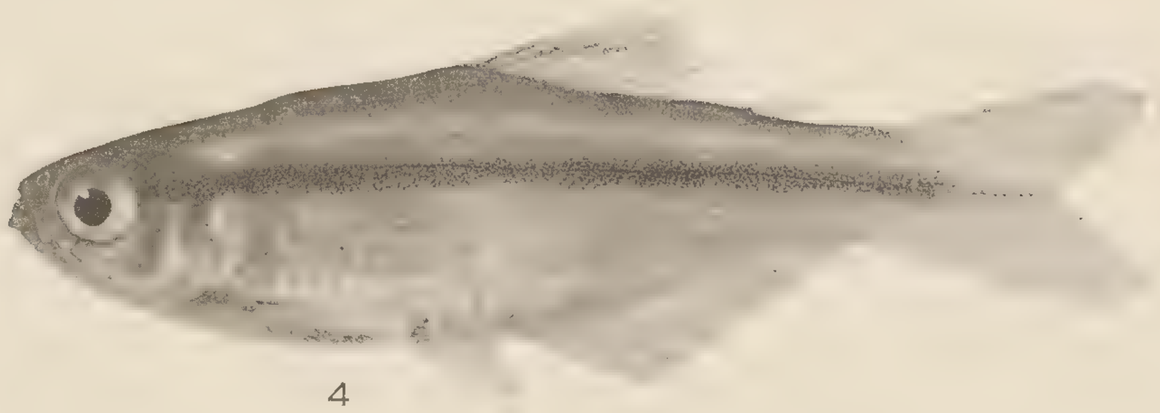
HELIOTYPE CO., BOSTON

PLATE 30.

PLATE **30.**

(Annals Carnegie mus., **8**, Plate 1, 2).

Fig. 1. Hyphessobrycon duragenys Ellis.
3023 C. M. 68 mm. *Type.* Mogy das Cruzes, Brazil.
Figs. 2 and 3. Hyphessobrycon bifasciatus Ellis.
3026 C. M. 44 mm., 37 mm. ♂ and ♀. *Types.* Campos, Brazil.
Fig. 4. Hyphessobrycon melanopleurus Ellis.
3035 C. M. 34 mm. *Type.* Alto da Serra, Southeastern Brazil.



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HELIOTYPE CO., BOSTON

PLATE **31.**

PLATE **31**.

(Annals Carnegie mus., **8**, Plate 1).

Fig. 1. Hasemania maxillaris Ellis.
2937 C. M. 29 mm. *Type*. Porto Uniao, Southeastern Brazil.
Fig. 2. Hasemania melanura Ellis.
3002 C. M. 35 mm. *Type*. Porto Uniao, Southeastern Brazil.
Fig. 3. Hasemania bilineata Ellis.
3004 C. M. 41 mm. *Type*. Alto da Serra, Southeastern Brazil.

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HELIOTYPE CO., BOSTON

PLATE 32.

PLATE 32.

Fig. 1. Psellogrammus kennedyi (Eigenmann).
3223 C. M. 46 mm. Caceres, Brazil.
The lateral line is erroneously shown as complete.
Fig. 2. Ctenobrycon hauxwellianus (Cope).
20752 M. C. Z. 95 mm. Tabatinga, Brazil.
Fig. 3. Astyanax alleni (Eigenmann & McAtee).
10158 I. U. M. 104 mm. Corumba, Brazil.

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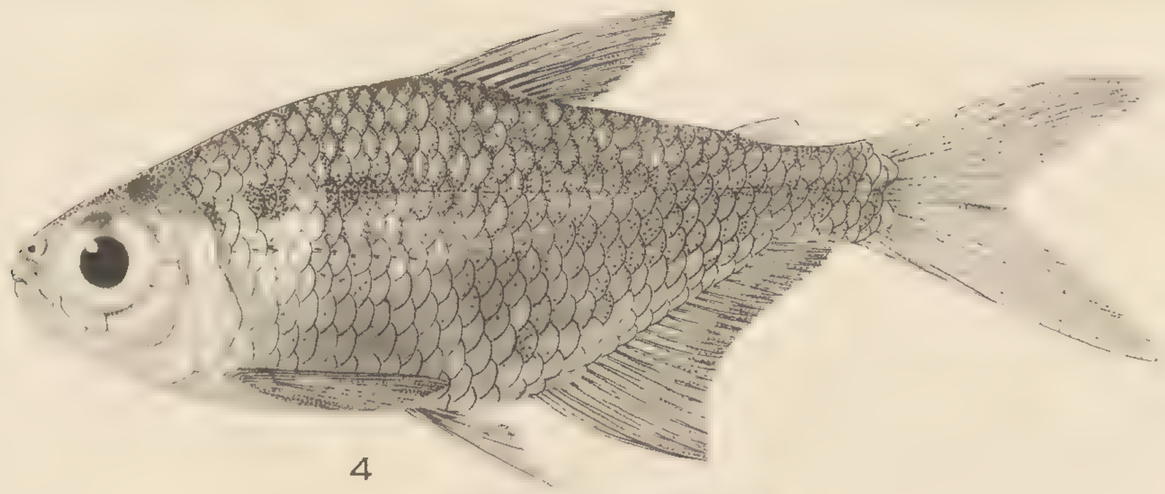
HELIOTYPE CO. BOSTON

PLATE 33.

PLATE 33.

Fig. 1. Hyphessobrycon inconstans (Eigenmann & Ogle).
5095 C. M. 62 mm. Quibdo, Colombia.
Fig. 2. Hyphessobrycon inconstans (Eigenmann & Ogle).
5094 C. M. 74 mm. *Type* of *H. proteus.* Quibdo, Colombia.
Fig. 3. Astyanax daguae Eigenmann.
5052 C. M. 58 mm. *Type.* Cordova, Colombia.
Fig. 4. Hyphessobrycon panamensis Durbin.
12849 I. U. M. Boca de Raspadura, Colombia.



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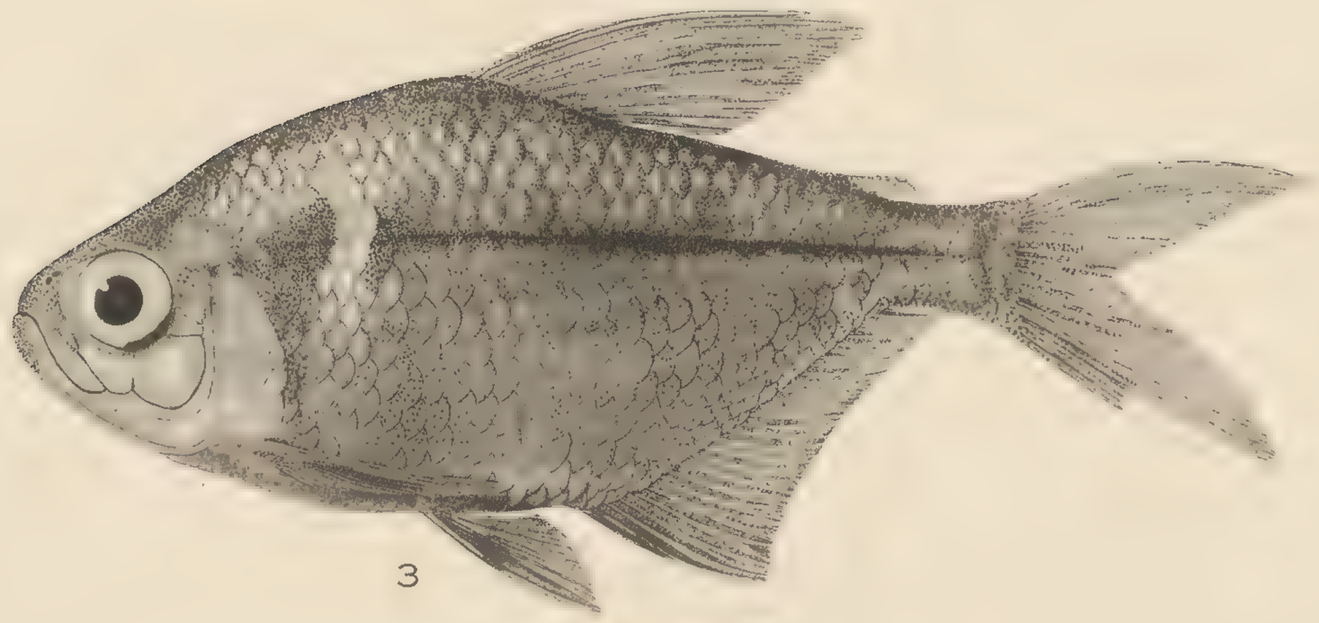

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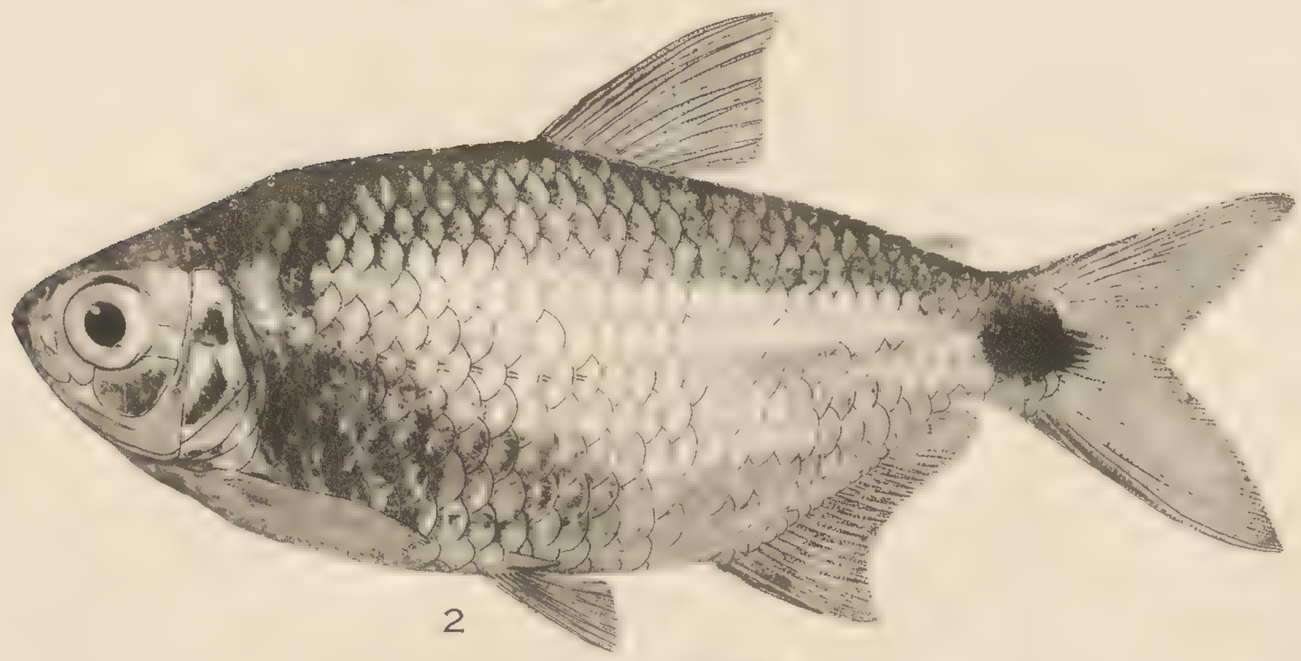

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HELIOTYPE CO., BOSTON

PLATE 34.

Fig. 1. Creagrutus brevipinnis Eigenmann.
4887a C. M. 61 mm. *Type.* Piedra Moler, Colombia.
Fig. 2. Creagrutus melanzonus Eigenmann.
1067 C. M. 44 mm. *Type.* Crab Falls, British Guiana.
Fig. 3. Creagrutus affinis Steindachner.
5439 C. M. 61 mm. Atrato Basin, Colombia.
Fig. 4. Creagrutus magdalenae Eigenmann.
4880 C. M. 78 mm. *Type.* Girardot, Colombia.
Fig. 5. Creagrutus caucanus Eigenmann.
4895 C. M. 113 mm. *Type.* Paila, Colombia.

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PLATE 35.

Fig. 1. Bryconamericus hyphessus Eigenmann.
1070 C. M. 37.5 mm. *Type.* Tumatumari, British Guiana.
Fig. 2. Microgenys minutus Eigenmann.
5007 C. M. 45 mm. *Type.* Piedra Moler, Colombia.
Fig. 3. Piabina argentea Reinhardt.
?3206 C. M. ——— Rio Ziriga.
Fig. 3a. Piabina argentea Reinhardt.
Premaxillary teeth from below.
Fig. 4. Creagrutus peruanus (Steindachner).
Premaxillary teeth from below.
Fig. 5. Creagrutus peruanus (Steindachner).
13759 I. U. M. Rio Comberciato.
Fig. 6. Creagrutus mülleri (Günther).
British Museum. *Type.* Ecuador.
Fig. 7. Creagrutus mülleri (Günther).
Premaxillary teeth from below.

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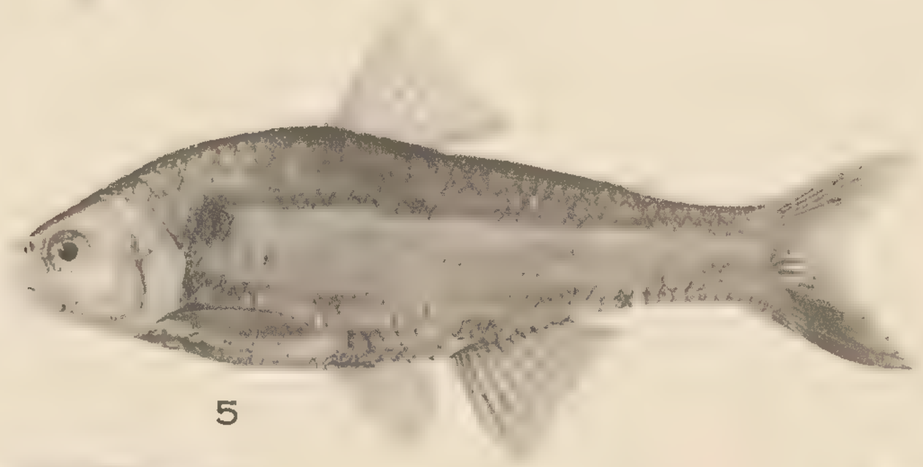

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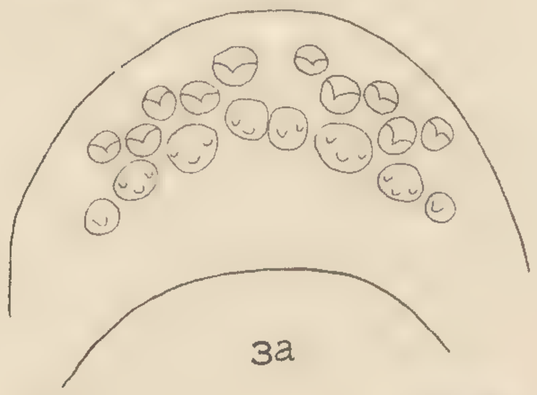

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HELIOTYPE CO., BOSTON

PLATE 36.

PLATE 36.

Fig. 1. Argopleura magdalenensis (Eigenmann).
5063 C. M. 71 mm. *Type.* Girardot, Colombia.
Fig. 2. Argopleura conventa (Eigenmann).
5060 C. M. 47 mm. (about). *Type.* Soplaviento, Colombia.
Fig. 3. Argopleura diquensis (Eigenmann).
5072 C. M. 60 mm. *Type.* Soplaviento, Colombia.
Fig. 4. Argopleura chocoensis (Eigenmann).
5036 C. M. 61 mm. *Cotype.* Istmina, Colombia.
Fig. 5. Argopleura chocoensis (Eigenmann).
5036 C. M. 67 mm. *Cotype.* Istmina, Colombia.

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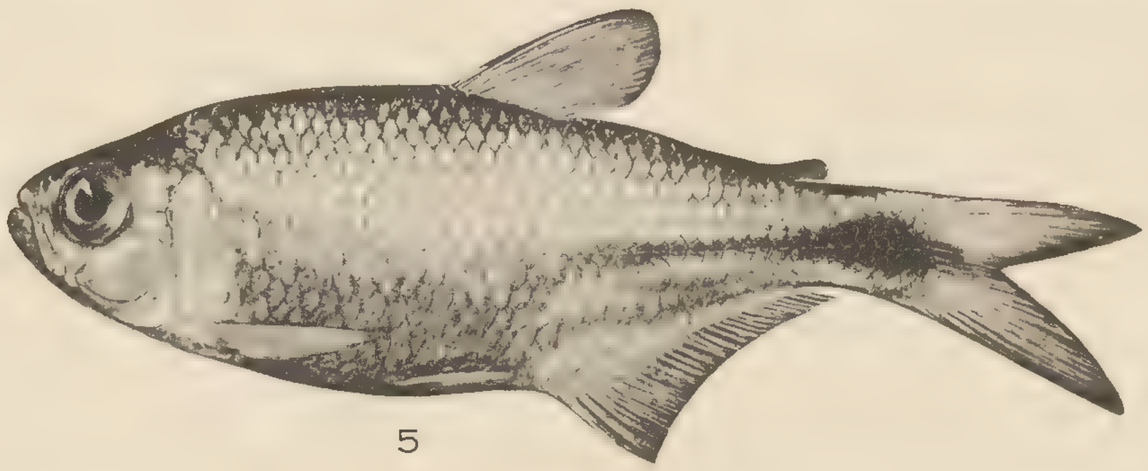
HELIOTYPE CO., BOSTON

PLATE 37.

PLATE 37.

Fig. 1. Bryconamericus stramineus Eigenmann.
11519 I. U. M. 49.5 mm. *Type.* Piracicaba, Brazil.
Fig. 2. Bryconamericus boops Eigenmann.
20700 M. C. Z. 76 mm. (about). *Type.* Maldonado, Uruguay.
Fig. 3. Bryconamericus emperador (Eigenmann & Ogle).
55651 U. S. N. M. 52 mm. *Type.* Empire Station, Panama.
Fig. 4. Bryconamericus peruanus (Müller & Troschel).
20871 M. C. Z. 44 mm. Near Trujillo, Peru.
Fig. 5. Bryconamericus ricae Eigenmann.
6267 F. M. *Cotype.* Chitaria, Costa Rica.



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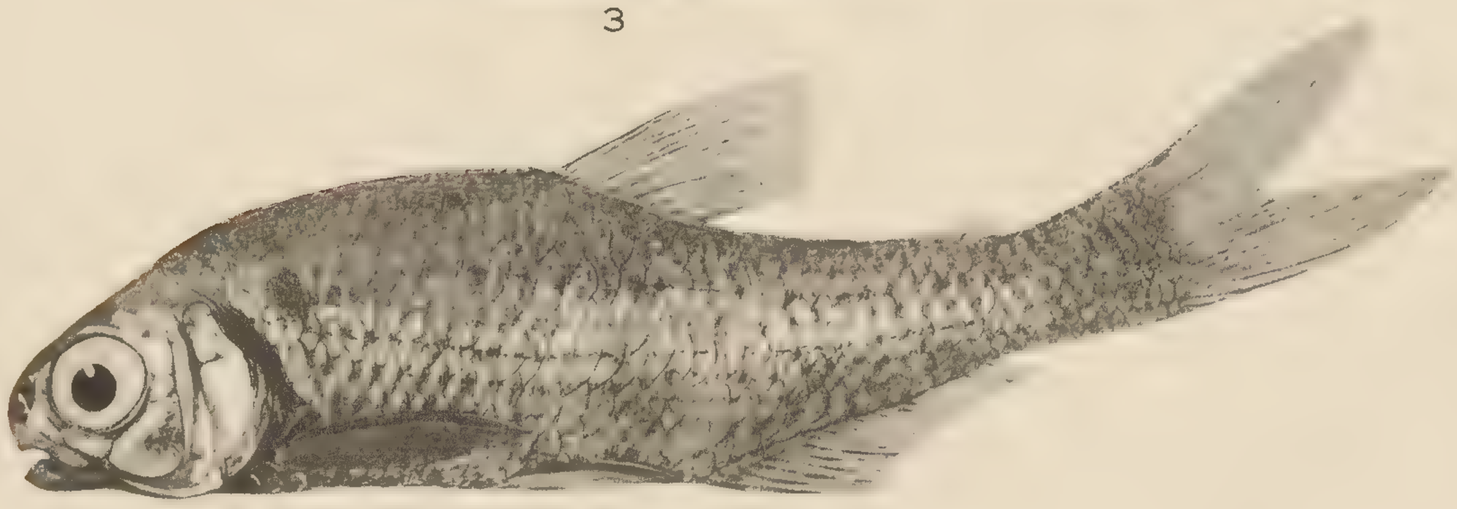

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HELIOTYPE CO., BOSTON

PLATE 38.

PLATE 38.

Fig. 1. Bryconamericus caucanus Eigenmann.
5031 C. M. 80 mm. *Type.* Piedra Moler, Colombia.
Fig. 2. Bryconamericus scopiferus Eigenmann.
5026 C. M. 90 mm. *Type.* Istmina, Colombia.
Fig. 3. Bryconamericus ortholepis Eigenmann.
5088 C. M. 48 mm. *Type.* Raspadura, Colombia.
Fig. 4. Bryconamericus scleroparius (Regan).
—— F. M. Rio San Juan, Nicaragua.

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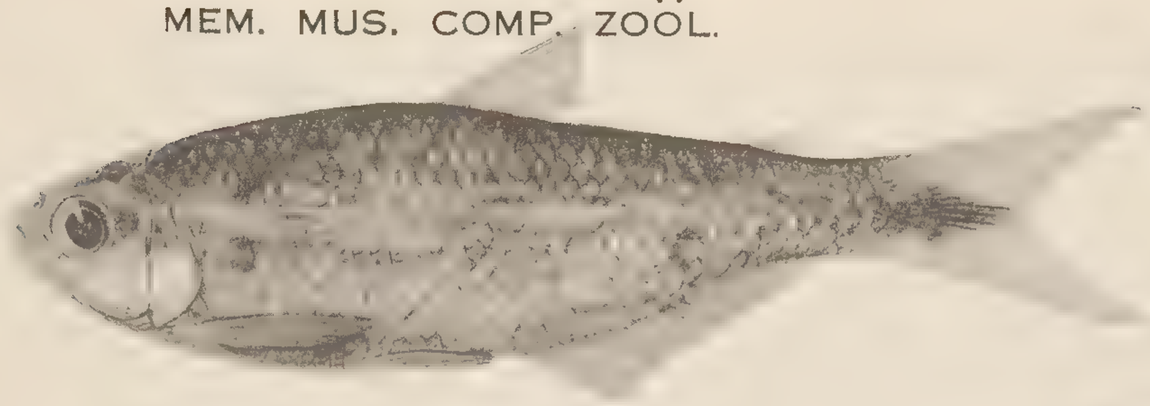
HELIOTYPE CO., BOSTON

PLATE 39.

PLATE 39.

Fig. 1. Hemibrycon decurrens (Eigenmann).
5055 C. M. 57 mm. *Type.* Soplaviento, Colombia.
Fig. 2. Hemibrycon taeniurus (Gill).
——Brit. Mus. Trinidad.
Fig. 3. Hemibrycon dentatus (Eigenmann).
5054 C. M. 98 mm. *Type.* Piedra Moler, Colombia.
Fig. 4. Hemibrycon tolimae (Eigenmann).
5057 C. M. 118 mm. *Type.* Ibagué, Colombia.
Fig. 5. Hemibrycon huambonicus (Steindachner).
After Steindachner.
Fig. 6. Hemibrycon guppii (Regan).
11326 I. U. M. Trinidad.



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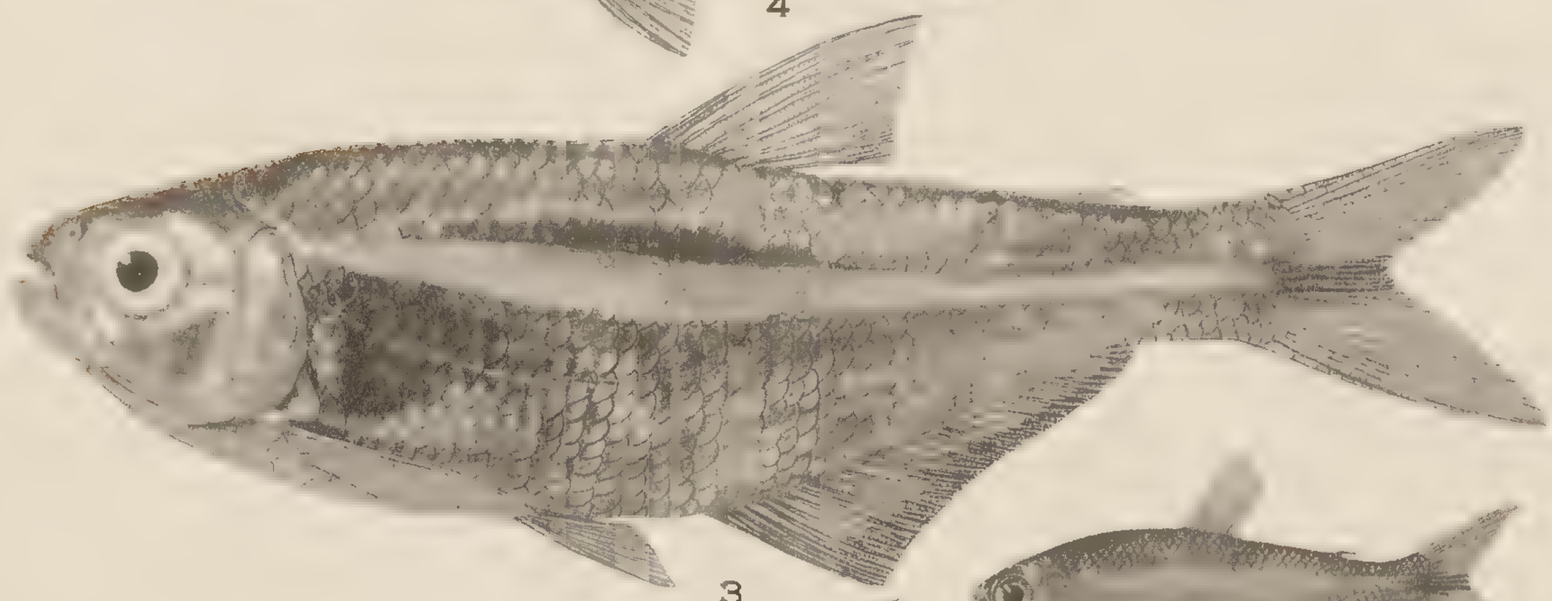

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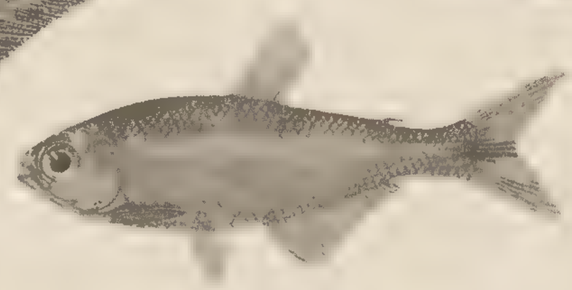

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HELIOTYPE CO., BOSTOM

PLATE 40.

PLATE 40.

Fig. 1. Astyanax bourgeti Eigenmann.
Part of 20788 M. C. Z. 92 mm. *Type*. Tabatinga, Brazil.
Fig. 2. Astyanax anterior Eigenmann.
Part of 20768 M. C. Z. 91 mm. *Type*. Tabatinga, Brazil.
Fig. 3. Astyanax riveti Pellegrin.
From the *Type* in the Jardin des Plantes. Rio Pove, Ecuador.
Fig. 4. Astyanax festae (Boulenger).
9587 Mus. Stanford Univ. 63 mm. Mirador, Ecuador.
Fig. 5. Astyanax pellegrini (Eigenmann & Kennedy).
10245 I. U. M. 87 mm. to end of middle caudal rays. Paraguay.

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HELIOTYPE CO., BOSTOM

PLATE 41.

PLATE 41.

Fig. 1. Astyanax symmetricus Eigenmann.
Part of 20768 M. C. Z. *Type*. Tabatinga, Brazil.
Caudal restored.

Fig. 2. Astyanax asymmetricus Eigenmann.
20763 M. C. Z. 45 mm. Tabatinga, Brazil.

Fig. 3. Astyanax zonatus Eigenmann.
Part of 20768 M. C. Z. 59 mm. *Type*. Tabatinga, Brazil.

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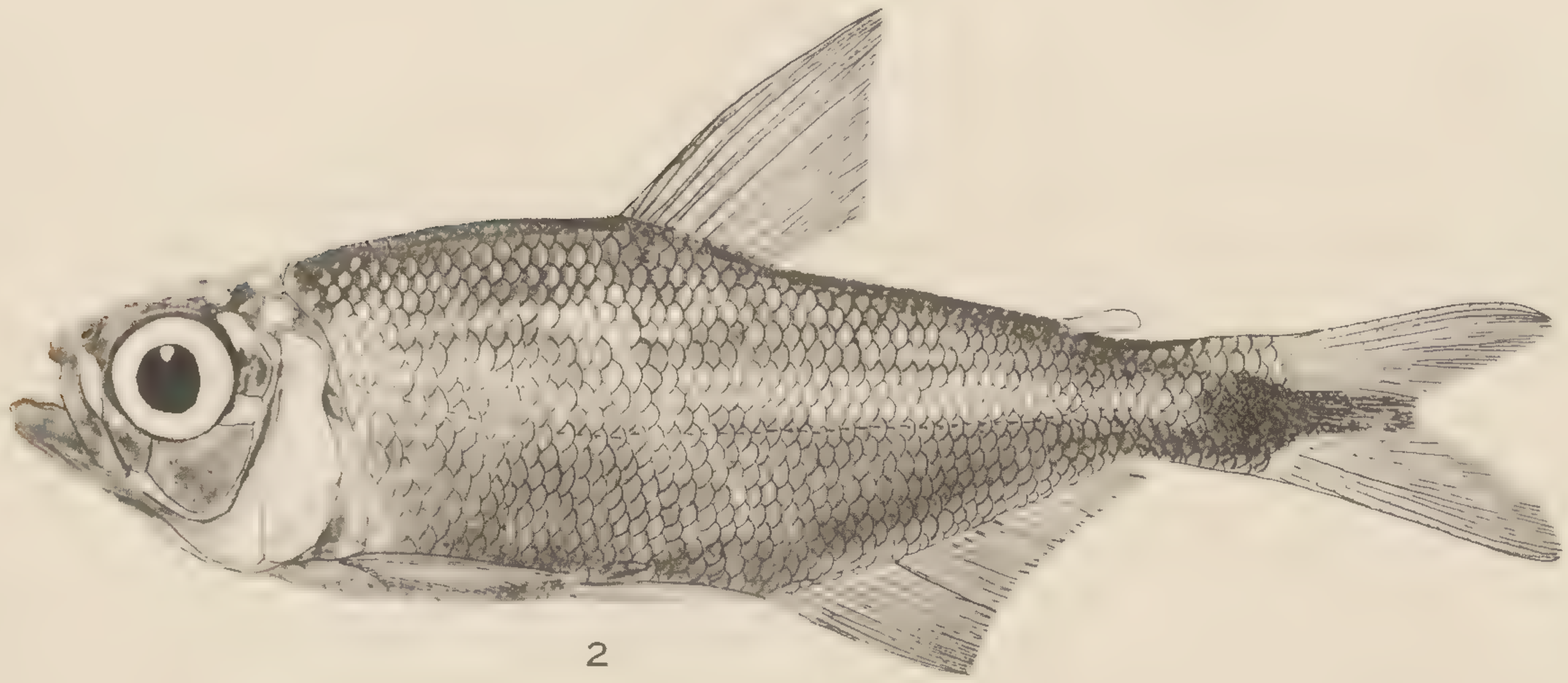

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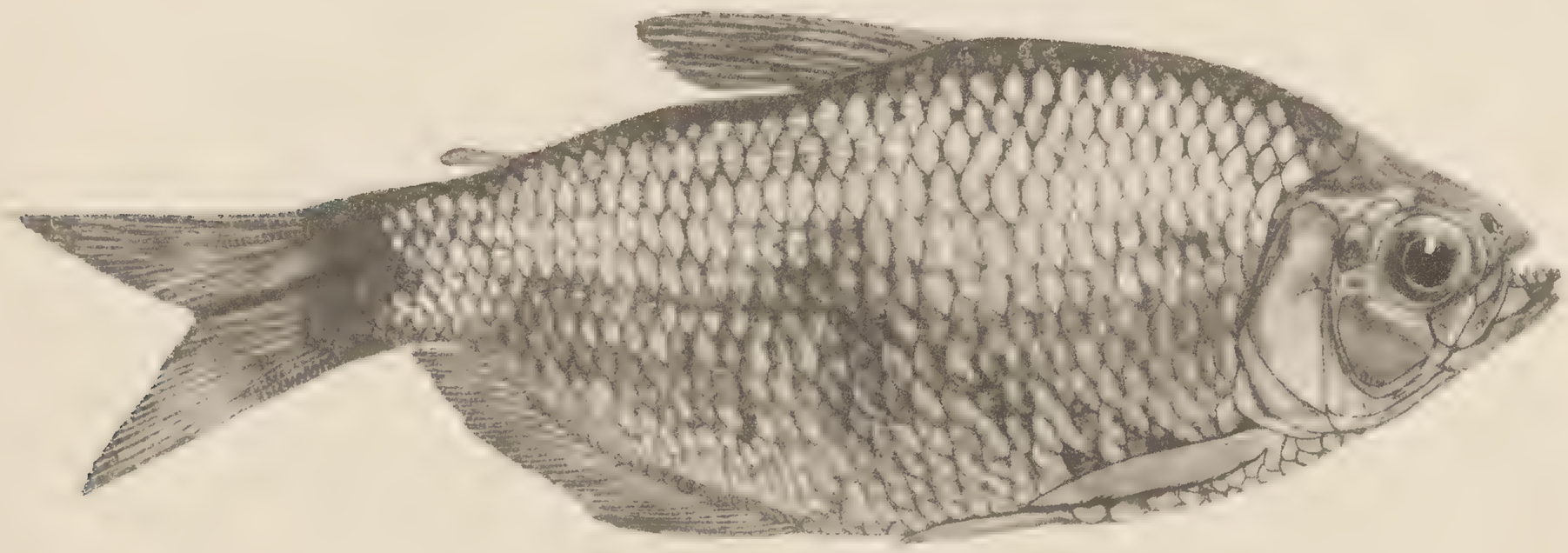
HELIOTYPE CO., BOSTON

PLATE 42.

PLATE 42.

Fig. 1. Astyanax janeiroensis Eigenmann.
21057 M. C. Z. 92 mm. *Type.* Rio de Janeiro, Brazil.
Fig. 2. Astyanax abramis (Jenyns).
10000 I. U. M. 70 mm. to base of caudal. Asuncion, Paraguay.
Caudal restored.
Fig. 3. Astyanax orthodus Eigenmann.
55655 U. S. N. M. 92 mm. *Type.* Truando, Colombia.



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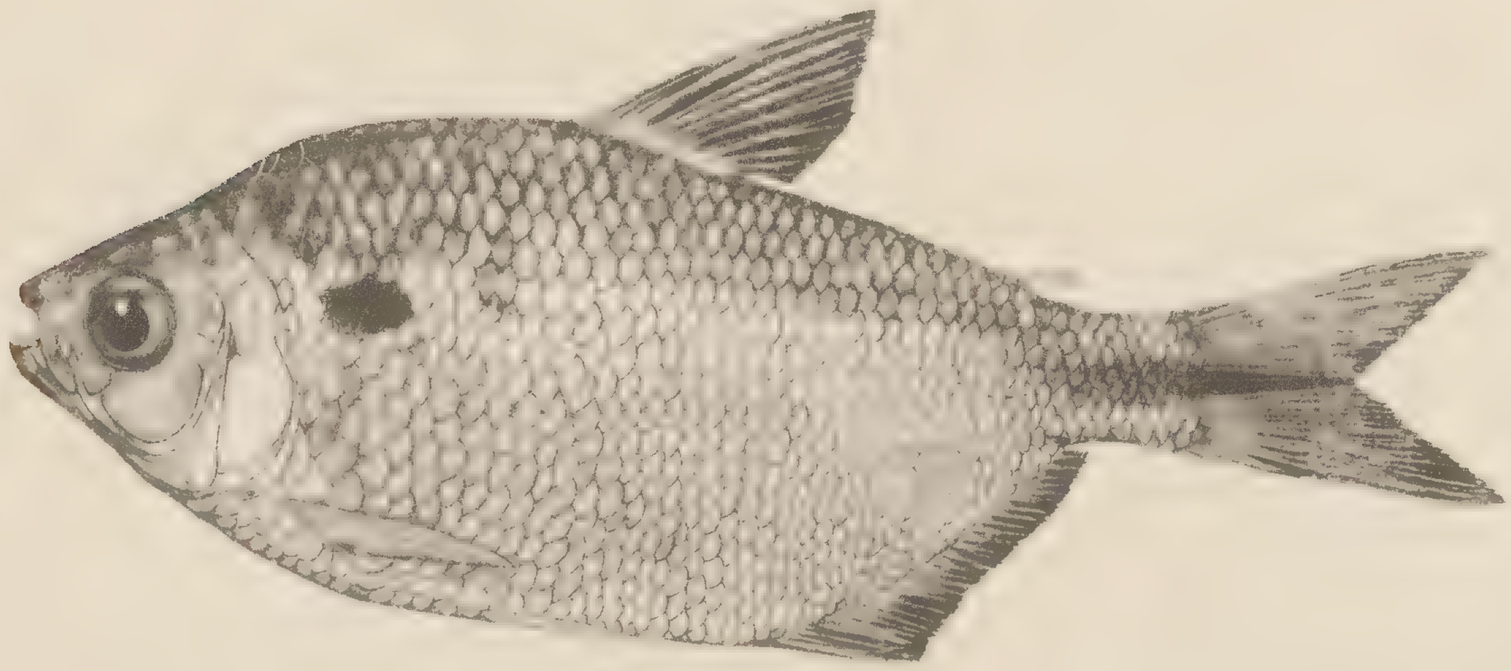

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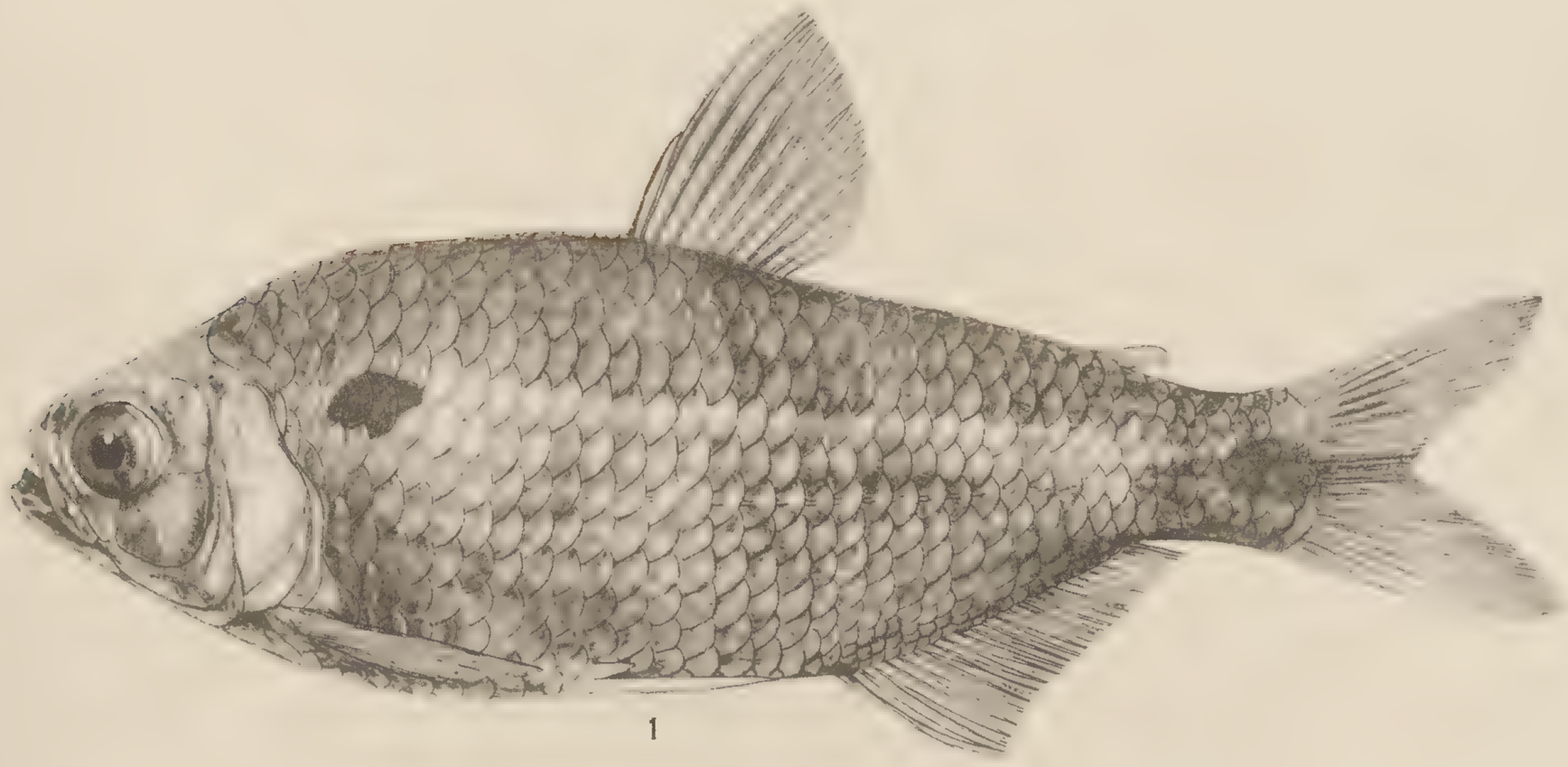

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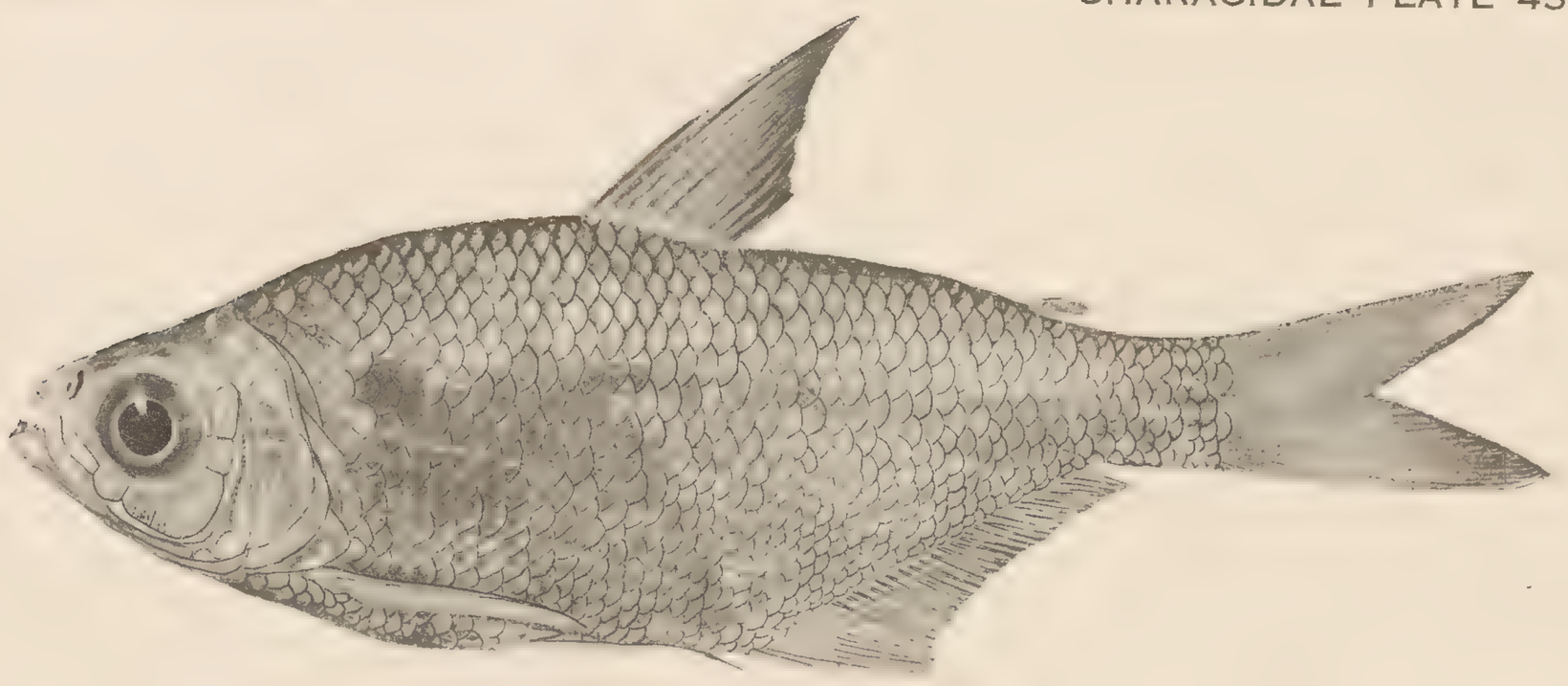
HELIOTYPE CO., BOSTON

PLATE 43.

PLATE 43.

Fig. 1. Astyanax caucanus (Steindachner).
12762 I. U. M. 111 mm. Calamar, Colombia.
Fig. 2. Astyanax atratoensis Eigenmann.
12756 I. U. M. 122 mm. Quibdo, Colombia.
Fig. 3. Astyanax stilbe (Cope).
34589 U. S. N. M. 78 mm. to base of caudal. Para, Brazil.



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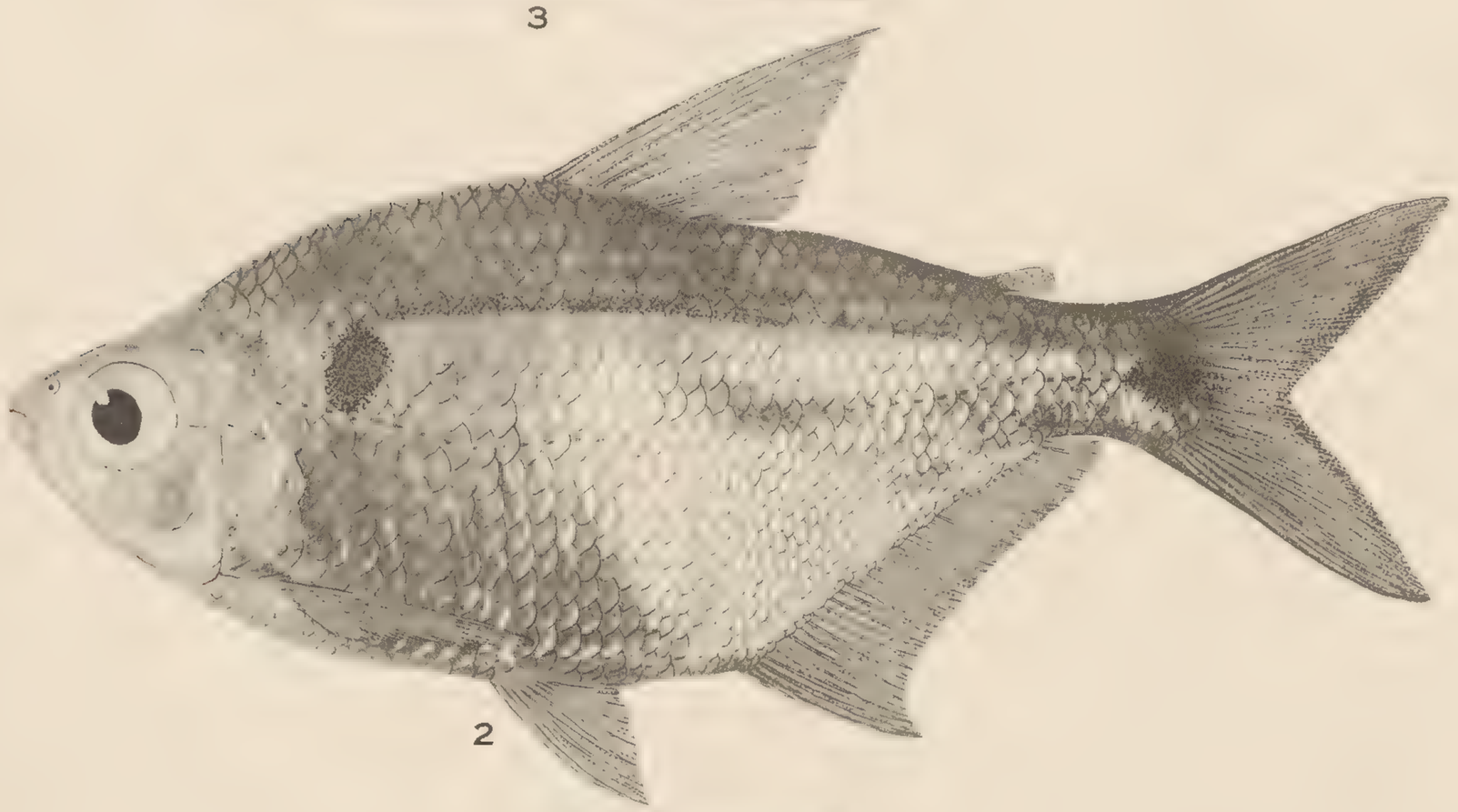

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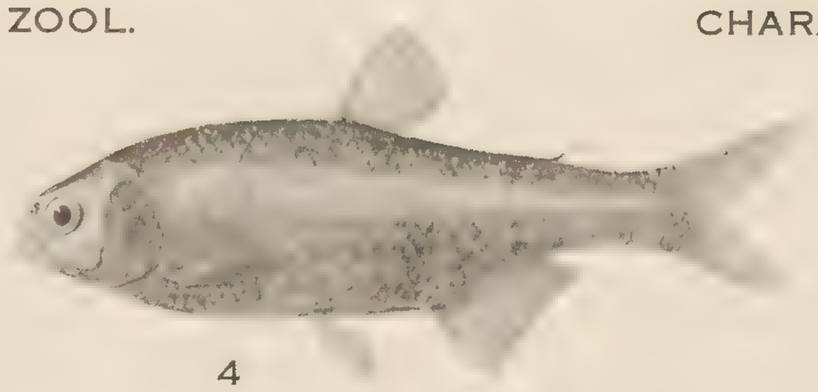
HELIOTYPE CO. BOSTON

PLATE 44.

PLATE 44.

Fig. 1. Astyanax ruberrimus Eigenmann.
4912 C. M. 107 mm. *Type.* Istmina, Colombia.
Fig. 2. Astyanax lineatus (Perugia).
3292 C. M. 100 mm. Sapucay, Paraguay.
Fig. 3. Astyanax cordovae (Günther).
11093 I. U. M. 65 mm. to base of caudal. Rio Primero, Argentina.
Fig. 4. Astyanax rubropictus (Berg).
From a specimen in the British Museum. Cachi Salta, Argentina, 2500 meters.



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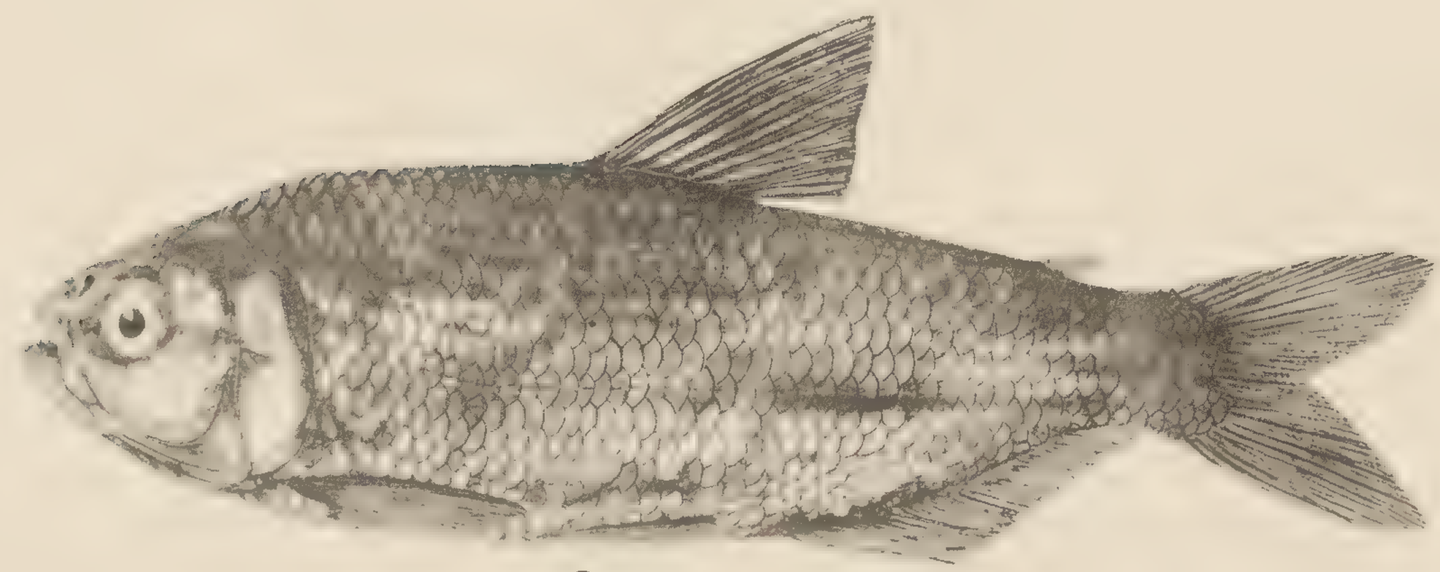

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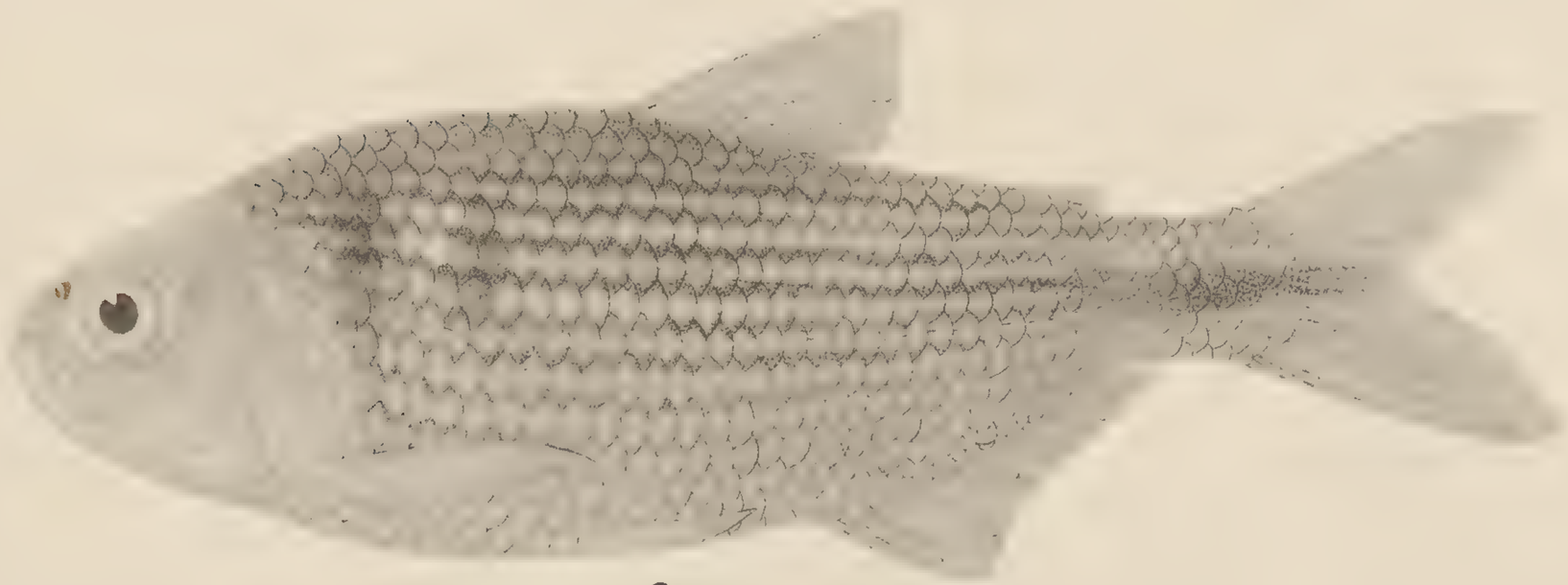

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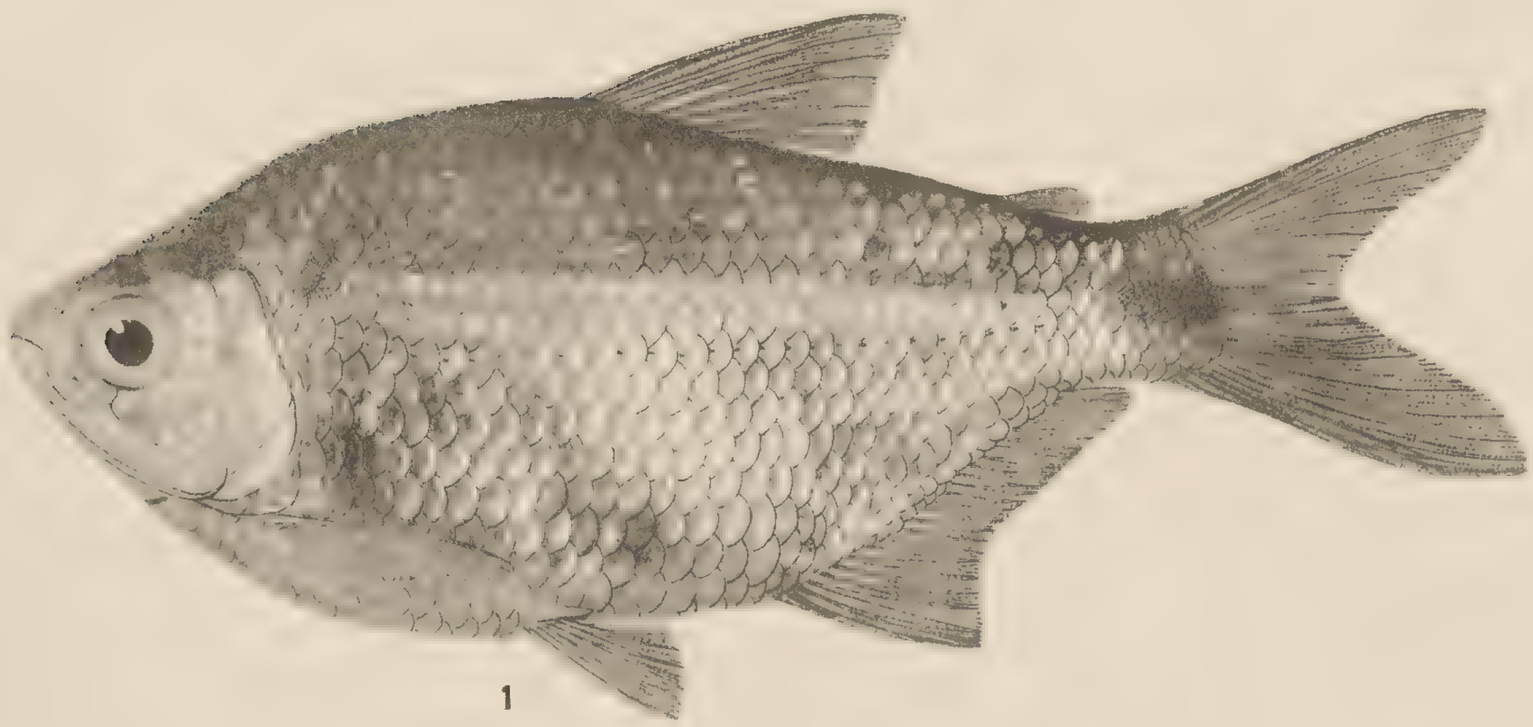

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HELIOTYPE CO., BOSTON

PLATE 45.

PLATE 45.

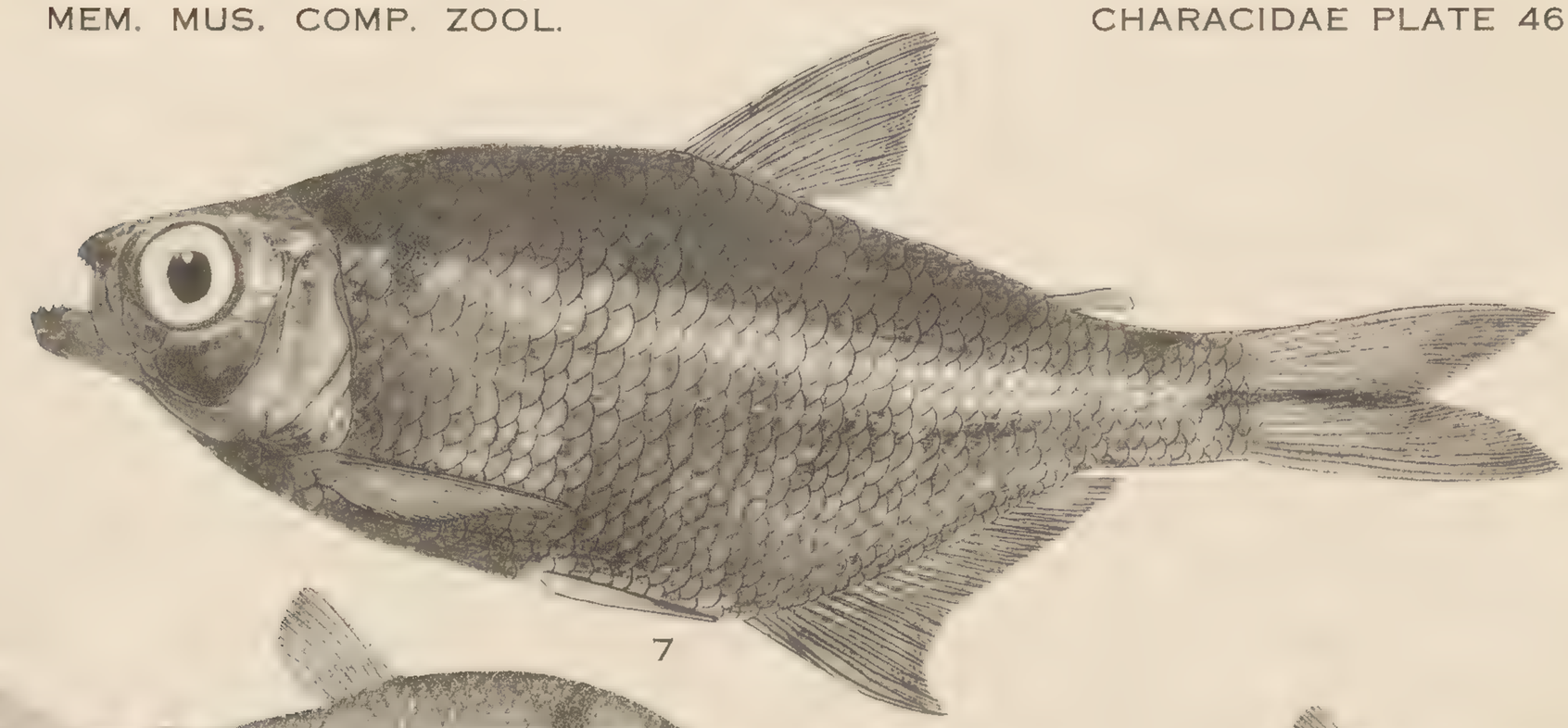
Fig. 1. Astyanax fasciatus (Cuvier).
12741a I. U. M. 163 mm. ♀. Boca de Raspadura, Colombia.
Fig. 2. Astyanax fasciatus (Cuvier).
12741b I. U. M. 139 mm. Boca de Raspadura, Colombia.
Fig. 3. Astyanax fasciatus (Cuvier).
3446 C. M. 136 mm. Rio Ribeira, Southeastern Brazil.
Fig. 4. Astyanax fasciatus (Cuvier).
After *Tetragonopterus cuvieri* Lütken.
Fig. 5. Astyanax fasciatus (Cuvier).
21048 M. C. Z. 114 mm. Rio San Francisco, Brazil.
Fig. 6, ♀ and 7, ♂. Astyanax fasciatus (Cuvier).
After *Tetragonopterus rutilus* Steindachner.

HELIOTYPE CO., BOSTON

PLATE 46.

PLATE **46.**

Fig. 1. Astyanax scabripinnis rivularis (Lütken).
M. C. Z. 75 mm. Santo Sera, Brazil.
Fig. 2 and 3. Astyanax scabripinnis rivularis (Lütken).
After Lütken.
Fig. 4. Astyanax scabripinnis (Jenyns).
21059 M. C. Z. 116 mm. Rio de Janeiro, Brazil.
Fig. 5 and 6. Astyanax scabripinnis (Jenyns).
After *Tetragonopterus jenynsii* Steindachner.
Fig. 7. Astyanax fasciatus parahybae Eigenmann.
20635 M. C. Z. 103 mm. Rio Parahyba, Brazil.



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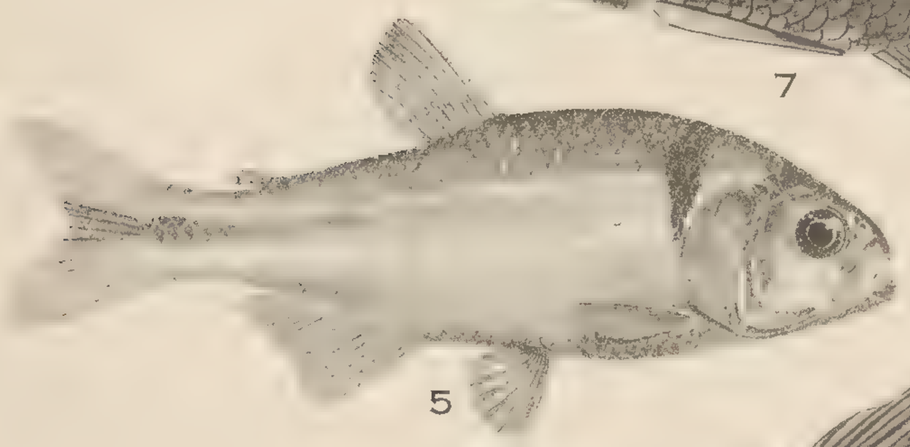

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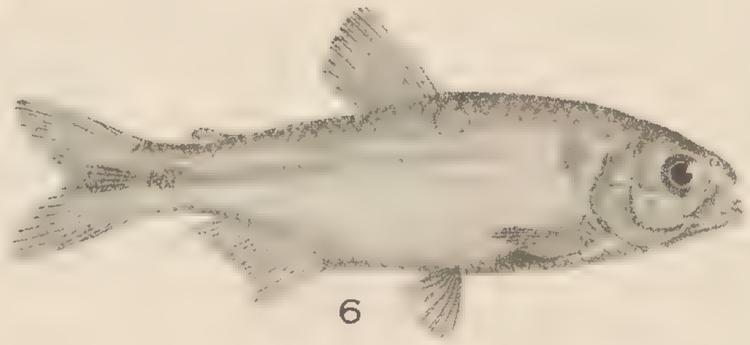

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HELIOTYPE CO. BOSTON

PLATE 47.

PLATE 47.

Fig. 1. Astyanax giton Eigenmann.
20936 M. C. Z. 67 mm. Rio Parahyba, Brazil.
Fig. 2. Astyanax brevirhinus Eigenmann.
20905 M. C. Z. 68 mm. *Type.* Rio Jequitinhonha, Brazil.
Fig. 3. Astyanax taeniatus (Jenyns).
21061 M. C. Z. 95 mm. Rio de Janeiro, Brazil.
Fig. 4. Astyanax taeniatus (Jenyns).
After *Astyanax fasciatus* Steindachner. *Non* Cuvier.
Fig. 5. Astyanax scabripinnis laticeps (Cope).
After Cope.

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HELIOTYPE CO. BOSTON

PLATE 48.

PLATE 48.

Fig. 1. Astyanax eigenmanniorum (Cope).
9294 I. U. M. 94.5 mm. Rio Tieté, Southeastern Brazil.
Fig. 2. Astyanax eigenmanniorum (Cope).
After Cope.
Fig. 3. Astyanax scabripinnis intermedius Eigenmann.
20684 M. C. Z. 53 mm. Rio Parahyba, Brazil.
Fig. 4. Astyanax microlepis Eigenmann.
5001 C. M. 86 mm. *Type.* Piedra Moler, Colombia.

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HELIOTYPE CO., BOSTON

PLATE 49.

PLATE 49.

Fig. 1. Astyanax albeolus Eigenmann.
6241 F. M. 116 mm. Rio Machucha, Costa Rica.

Figs. 2 and 3. Composite of Steindachner's figures of *A. fischeri* which is *fasciatus* and the color of *ruberrimus* from the same locality. The combination was made when it was thought there was but one species of Astyanax in the type-locality of *fischeri* and that Steindachner's artist had omitted the color spots on the caudal. Hildebrand has just found that both *fasciatus* and *ruberrimus* occur in the type-locality of *fischeri* and that the latter is a synonym of *fasciatus*.

Figs. 4 and 5. Astyanax mexicanus (Filippi).
(4) 10927 I. U. M. ♀. 80 mm. Victoria, Mexico.
(5) 10921 I. U. M. ♂. 73 mm. Yantepec, Mexico.

Fig. 6. Astyanax fasciatus macrophthalmus Regan.
10928 I. U. M. 82 mm. Motzorongo, Mexico.

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HELIOTYPE CO., BOSTON

PLATE 50.

PLATE 50.

Fig. 1. Astyanax gracilior Eigenmann.
20716 M. C. Z. 36 mm. *Type.* Villa Bella, Brazil.
Fig. 2. Astyanax fasciatus (Cuvier).
After Steindachner.
Fig. 3. Astyanax fasciatus jequitinhonhae (Steindachner).
20901 M. C. Z. 83 mm. Rio Jequitinhonha, Brazil.
Fig. 4. Astyanax multidens Eigenmann.
20840 M. C. Z. 37 mm. *Type.* Obidos.
Fig. 5. Astyanax paucidens (Ulrey).
20978 M. C. Z. 34 mm. Lago Alexo, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 51.

PLATE 51.

Fig. 1. Astyanax aurocaudatus Eigenmann.
5162 C. M. 60 mm. *Type.* Boquia, Colombia.
Fig. 2. Astyanax Zygogaster filiferus (Eigenmann).
12847 I. U. M. 110 mm. *Type.* Apulo, Colombia.
Fig. 3. Genycharax tarpon Eigenmann.
4808 C. M. 174 mm. *Type.* Cartago, Colombia.

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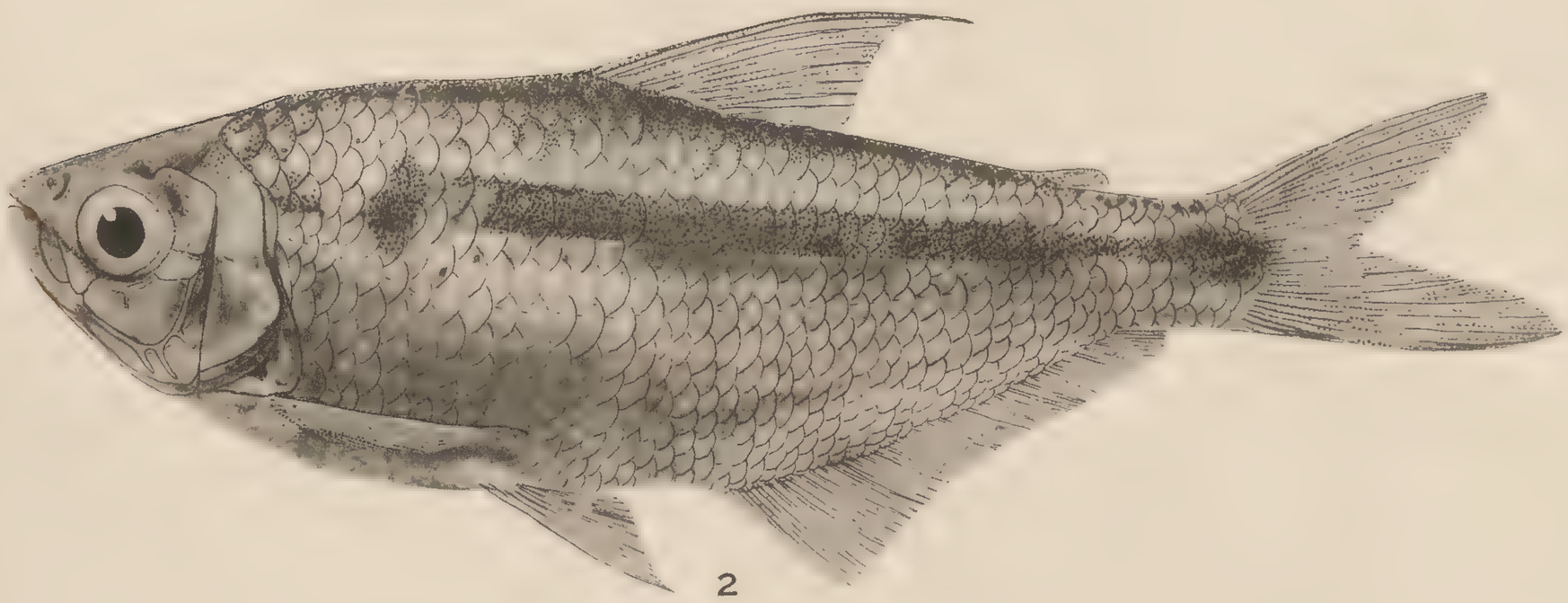

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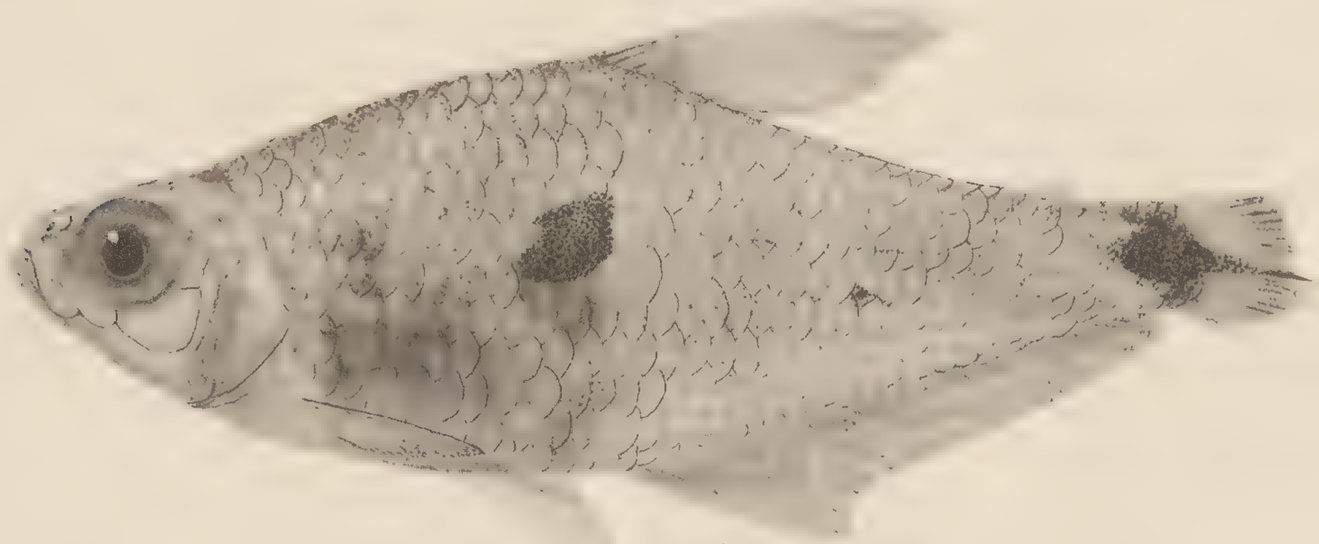
HELIOTYPE CO., BOSTON

PLATE 52.

PLATE 52.

(Annals Carnegie mus., **8**, Plate 7).

Fig. 1. Astyanax guaporensis Eigenmann.
3352 C. M. 33 mm. *Paratype.* Maciél, Brazil.
Fig. 2. Astyanax marionae Eigenmann.
3353 C. M. 54 mm. *Type.* San Luiz de Caceres, Brazil.
Fig. 3. Astyanax bimaculatus novae Eigenmann.
3278 C. M. *Type.* Rio Sapon, Brazil.
Fig. 4. Vesicatrus tegatus Eigenmann.
3201 C. M. 33 mm. *Type.* Jaurú, Brazil.



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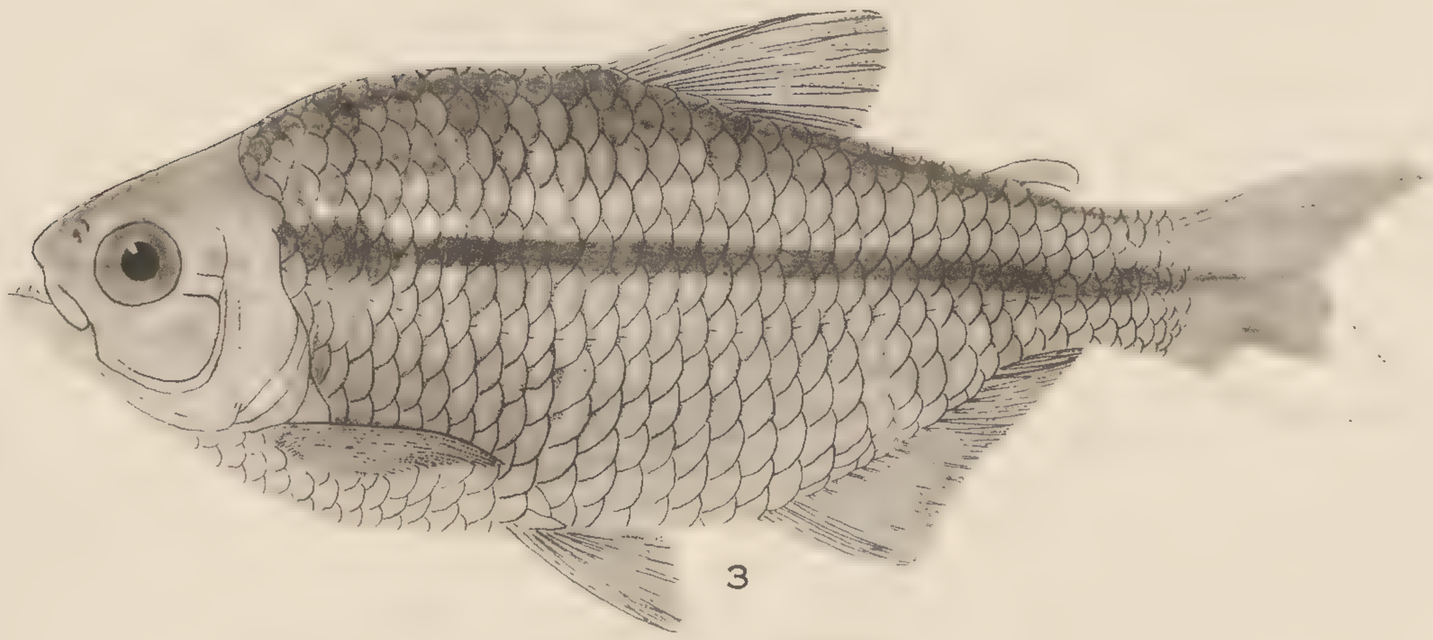

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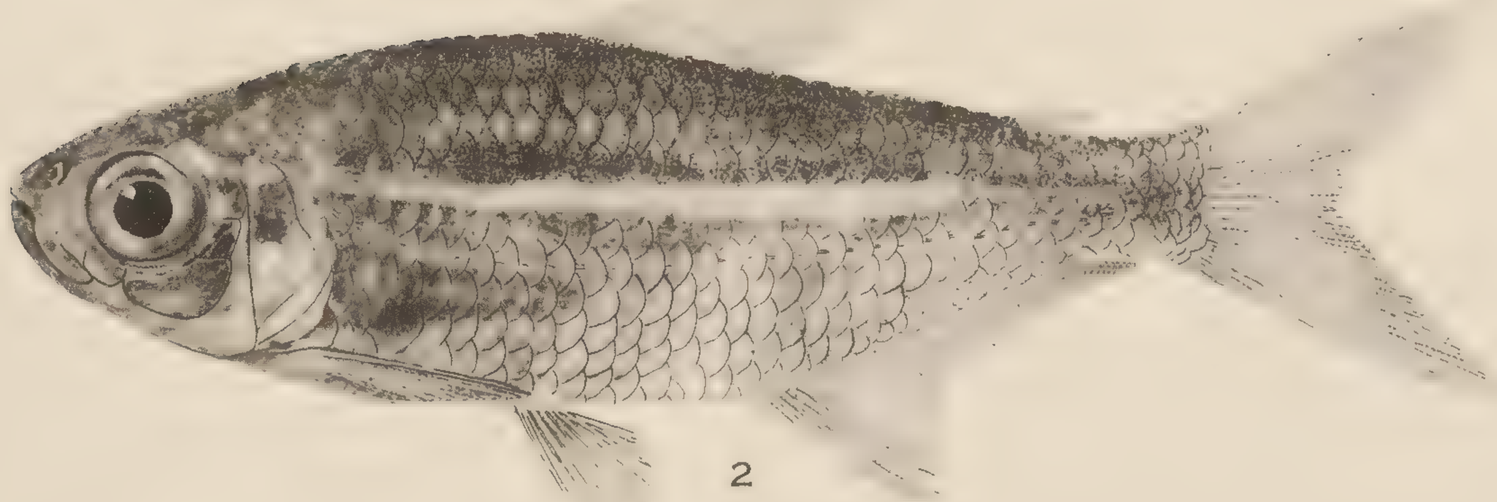

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HELIOTYPE CO., BOSTOM

PLATE 53.

PLATE 53.

(Mem. Carnegie mus., **5**, Plate 51).

Fig. 1. Astyanax mucronatus Eigenmann.
1025 C. M. 53 mm. *Type.* Tumatumari, British Guiana.
Fig. 2. Astyanax mutator Eigenmann.
1023 C. M. 53 mm. *Type.* Savannah Landing, British Guiana.
Fig. 3. Astyanax essequibensis Eigenmann.
1018 C. M. 53 mm. *Type.* Tumatumari, British Guiana.
Fig. 4. Astyanax guianensis Eigenmann.
1013 C. M. 54 mm. *Type.* Warraputa, British Guiana.

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HELIOTYPE CO., BOSTON

PLATE 54.

PLATE 54.

(Mem. Carnegie mus., **5**, Plate 52).

Fig. 1. Astyanax potaroensis Eigenmann.
1037 C. M. 58 mm. *Type.* Amatuk, British Guiana.
Fig. 2. Astyanax abramoides Eigenmann.
1028 C. M. 112 mm. *Type.* Tumatumari, British Guiana.
Fig. 3. Astyanax polylepis (Günther).
1419b C. M. 84 mm. Tumatumari, British Guiana.
Fig. 4. Astyanax wappi (Cuvier & Valenciennes).
From a specimen in British Museum.
Fig. 5. Astyanax polylepis (Günther).
1419 C. M. 50 mm. Tumatumari, British Guiana.

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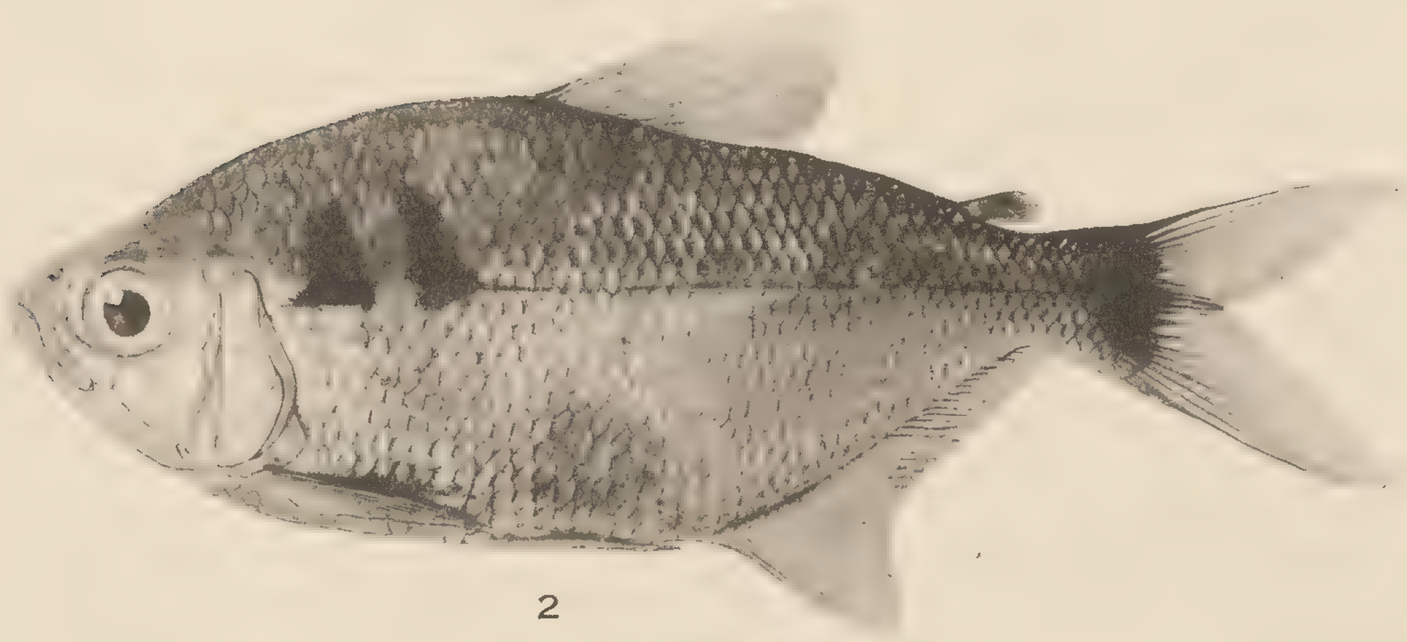

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HELIOTYPE CO., BOSTON

PLATE 55.

PLATE 55.

(Annals Carnegie mus., **8**, Plate 8).

Fig. 1. Deuterodon acanthogaster Eigenmann.
3395 C. M. 54 mm. *Type*. Corumba, Brazil.
Fig. 2. Astyanax ribeirae Eigenmann.
3368 C. M. 65 mm. *Type*. Xiririca, Southeastern Brazil.
Fig. 3. Astyanax paranahybae Eigenmann.
3356 C. M. 54 mm. *Type*. Paranahyba, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 56.

PLATE 56.

Fig. 1. Phenacogaster microstictus Eigenmann.
1063 C. M. 48 mm. *Type.* Tumatumari, British Guiana.
Fig. 2. Phenacogaster megalostictus Eigenmann.
1056 C. M. 65 mm. *Type.* Tumatumari, British Guiana.
Fig. 3. Deuterodon pinnatus Eigenmann.
1046 C. M. 62 mm. *Type.* Amatuk, British Guiana.
Fig. 4. Deuterodon potaroensis Eigenmann.
1053 C. M. 43 mm. *Type.* Amatuk, Cataract, British Guiana.

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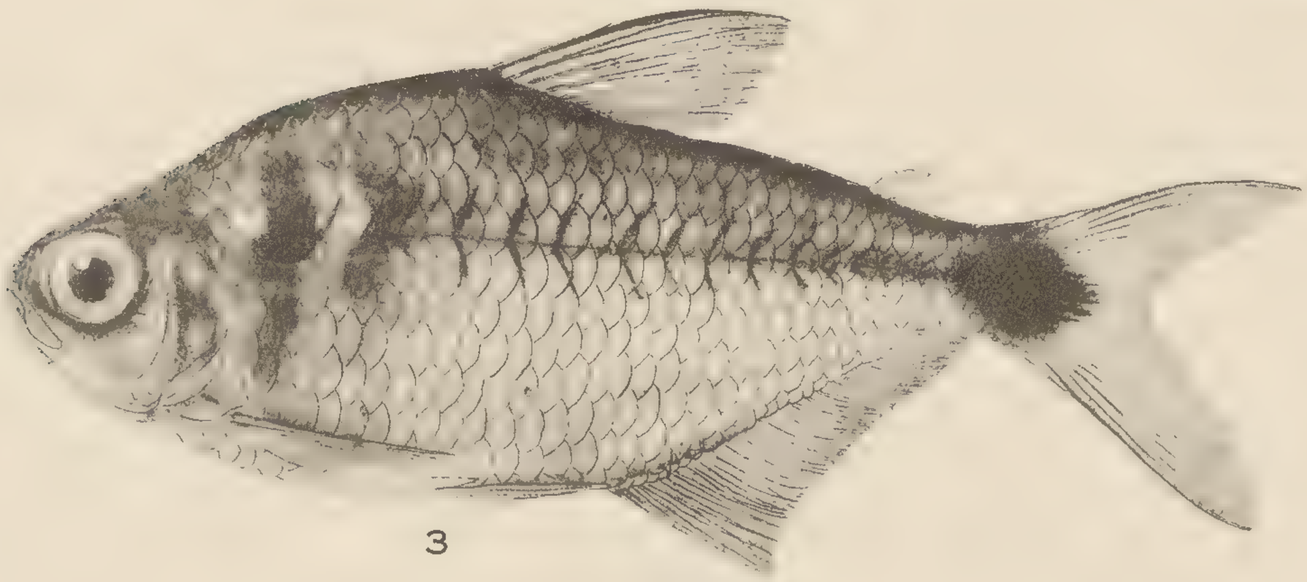

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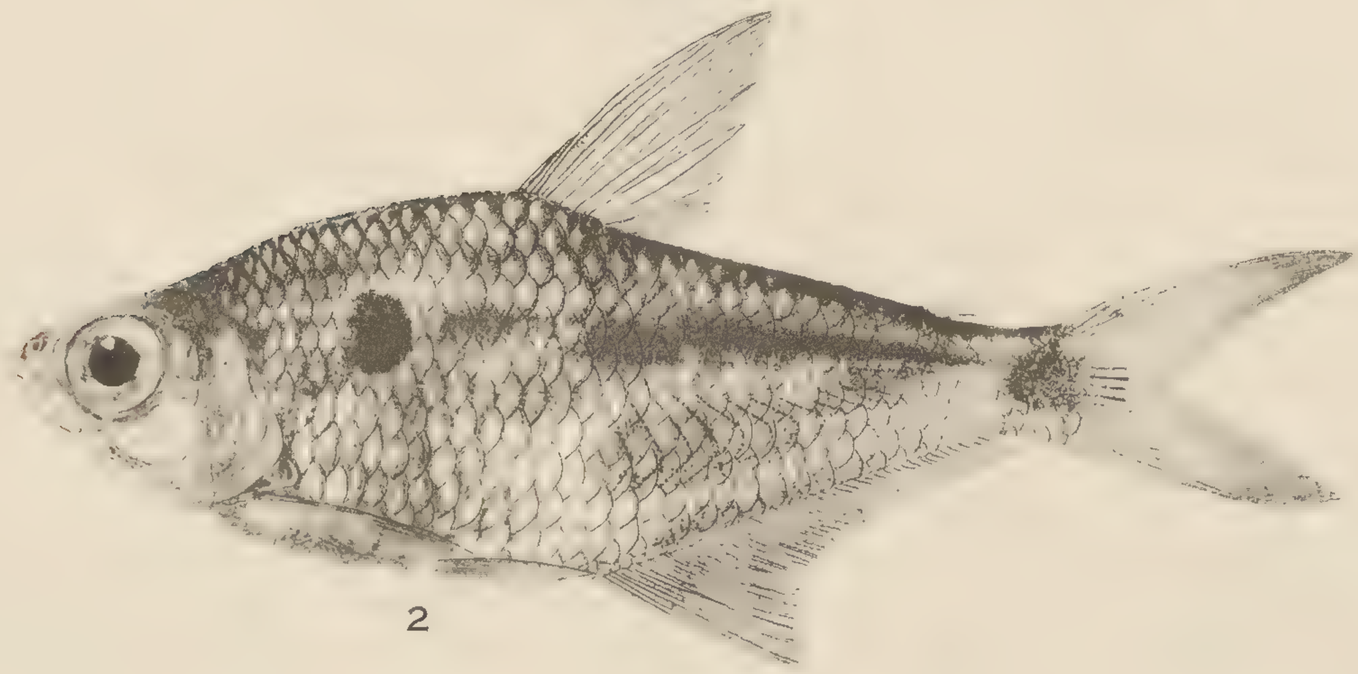

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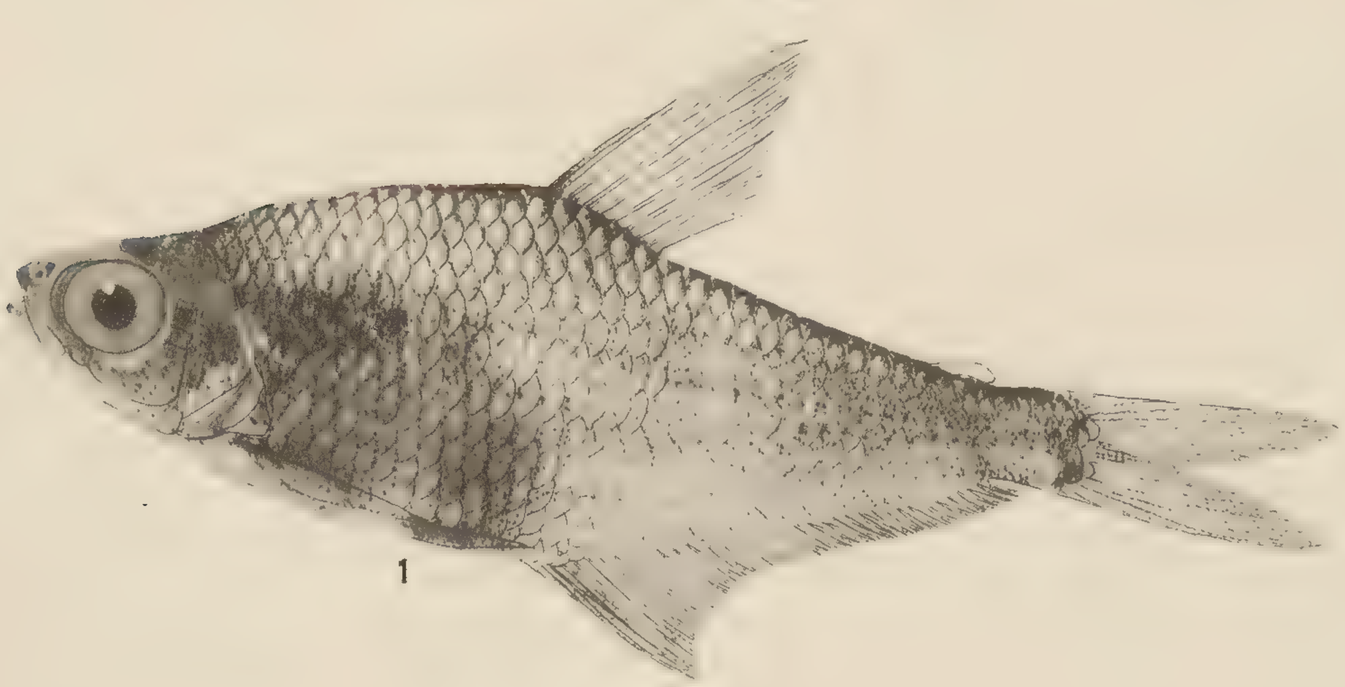

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HELIOTYPE CO., BOSTON

PLATE 57.

PLATE 57.

Fig. 1 and 2. Psalidodon gymnodontus Eigenmann.
Fig. 3. Moenkhausia simulata Eigenmann and Pearson.

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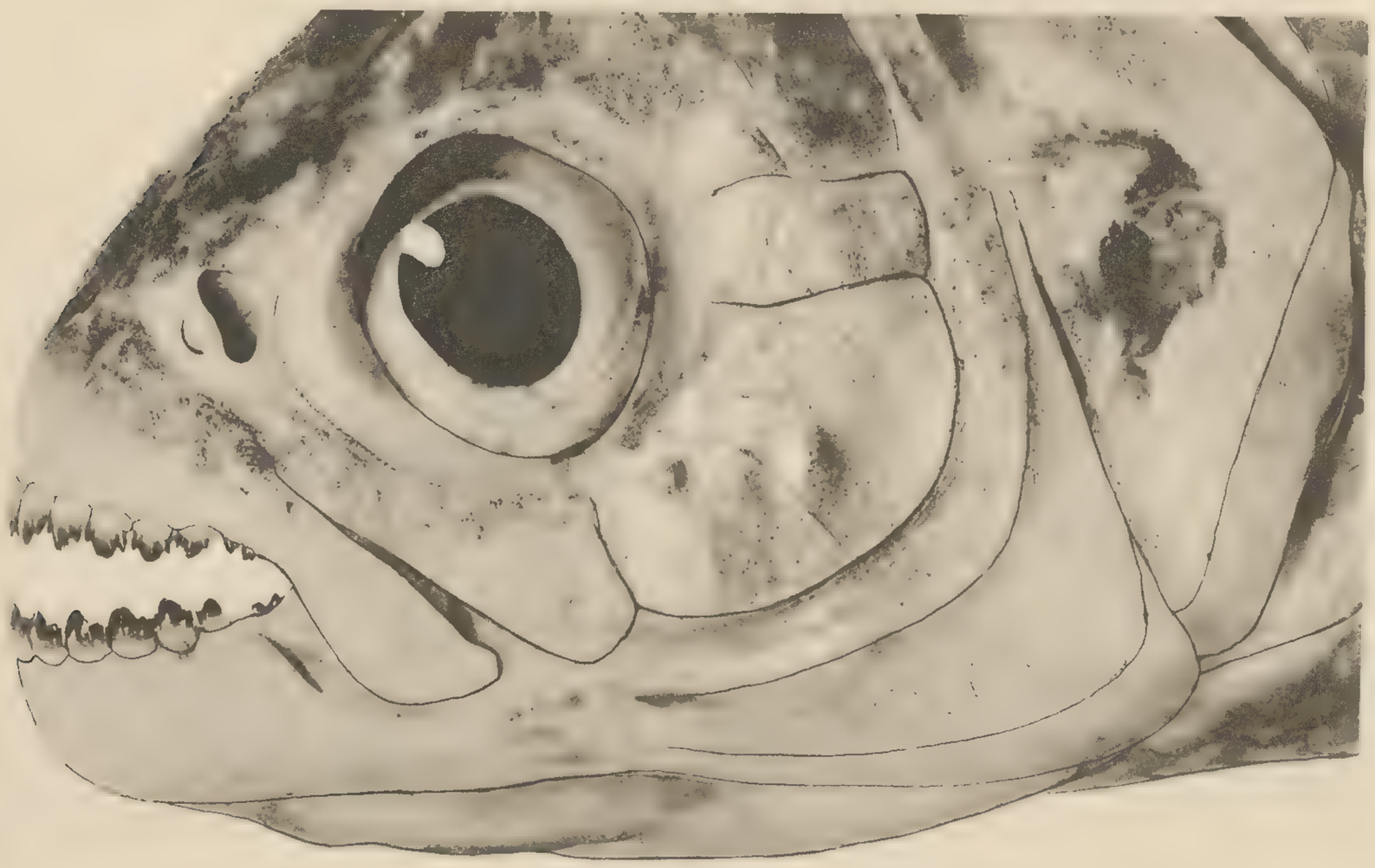

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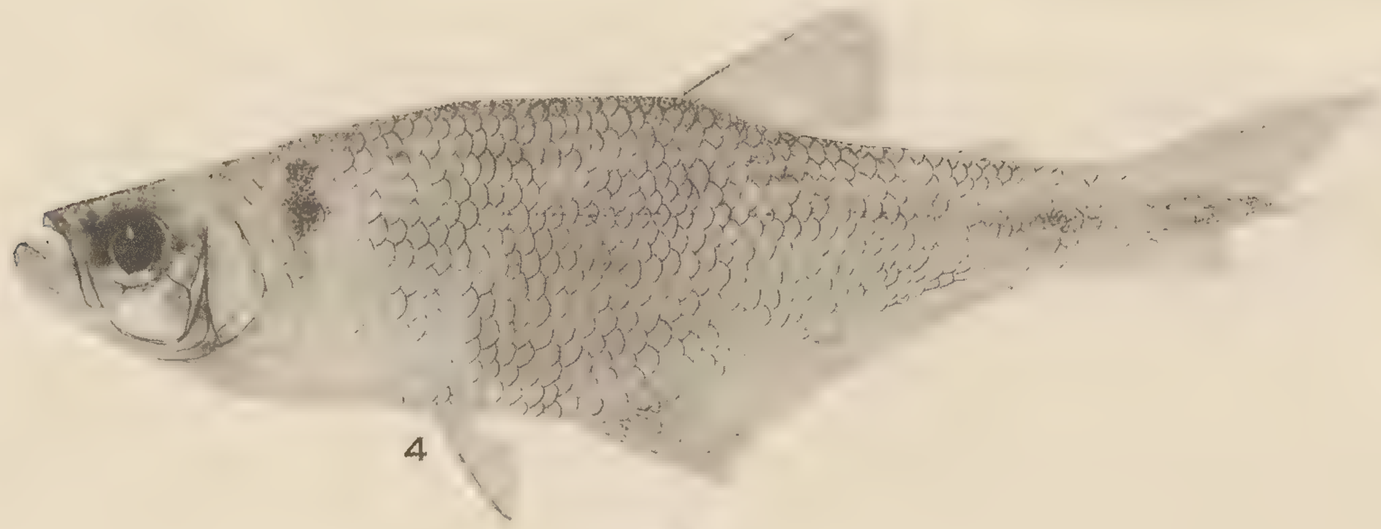
HELIOTYPE CO. BOSTON

PLATE 58.

PLATE 58.

Fig. 1. Phenacogaster beni Eigenmann.
3229 C. M. 48 mm. *Type.* Villa Bella, Rio Beni.
Fig. 2. Phenacogaster franciscoensis Eigenmann.
3231 C. M. 38 mm. *Type.* Boqueiras, Rio Porto.
Fig. 3. Creagrutus beni Eigenmann.
3216 C. M. 53 mm. *Type.* Villa Bella, Rio Beni.
Fig. 4. Hysteronotus megalostomus Eigenmann.
3551 C. M. 45 mm. *Type.* Rio das Velhas, Brazil.



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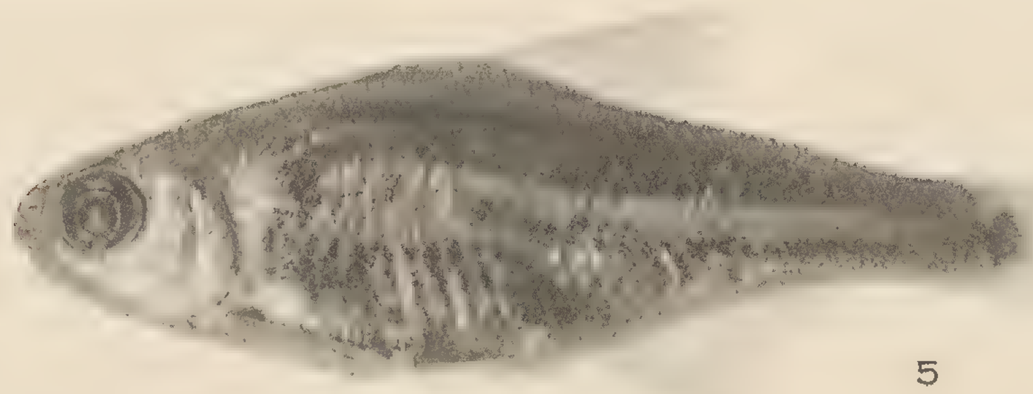
HELIOTYPE CO., BOSTON

PLATE 59.

PLATE 59.

Fig. 1. Glandulocauda melanopleura Eigenmann.
3557 C. M. 51 mm. *Type.* Rio Iquassú, Brazil.
Fig. 2. Glandulocauda melanogenys Eigenmann.
3553 C. M. 49 mm. *Type.* Alto do Serra.
Fig. 3. Glandulocauda inequalis Eigenmann.
3555 C. M. 40 mm. *Type.* Porto Alegre, Brazil.
Fig. 4. Astyanacinus multidens Pearson.
17323 I. U. M. 122 mm. *Cotype.* Rio Colorado, Lower Bopi, Argentina.
Fig. 5. Piabina beni Pearson.
17317 I. U. M. 36 mm. *Cotype.* Popoi River, Upper Beni, Argentina.



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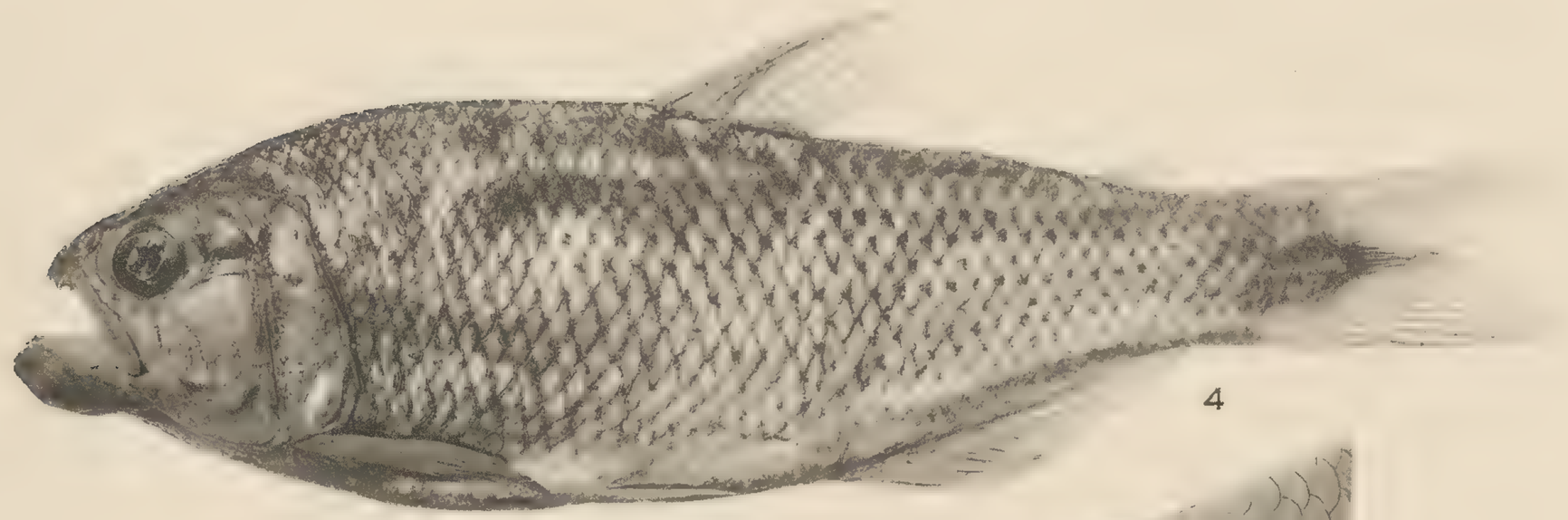

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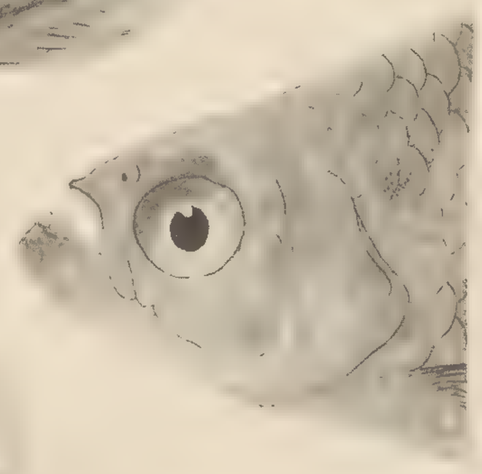

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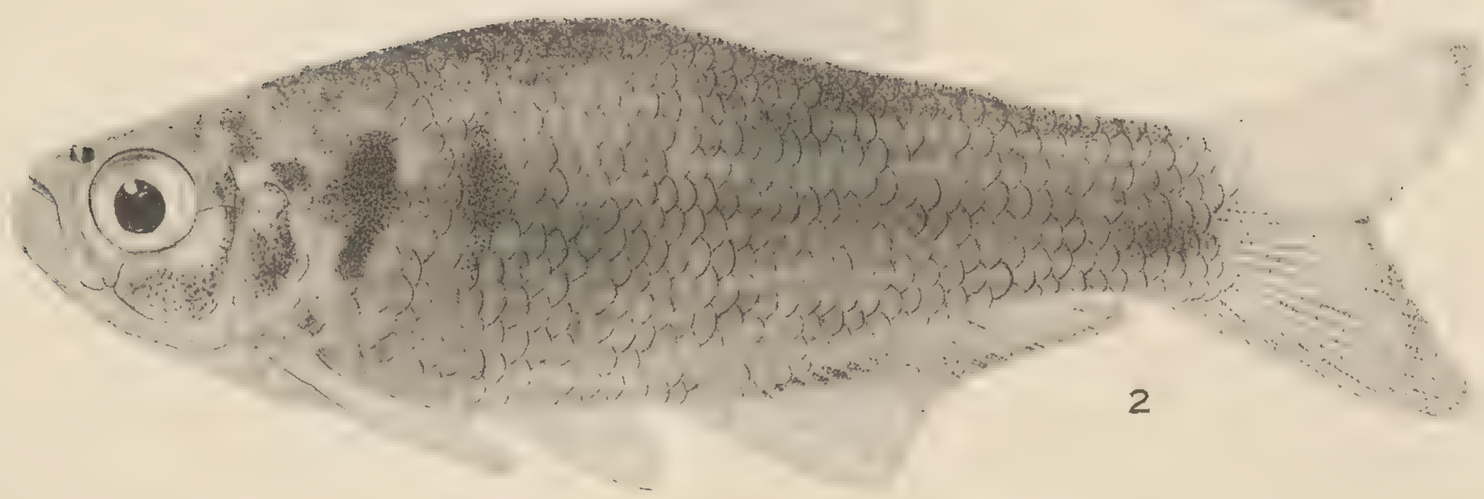

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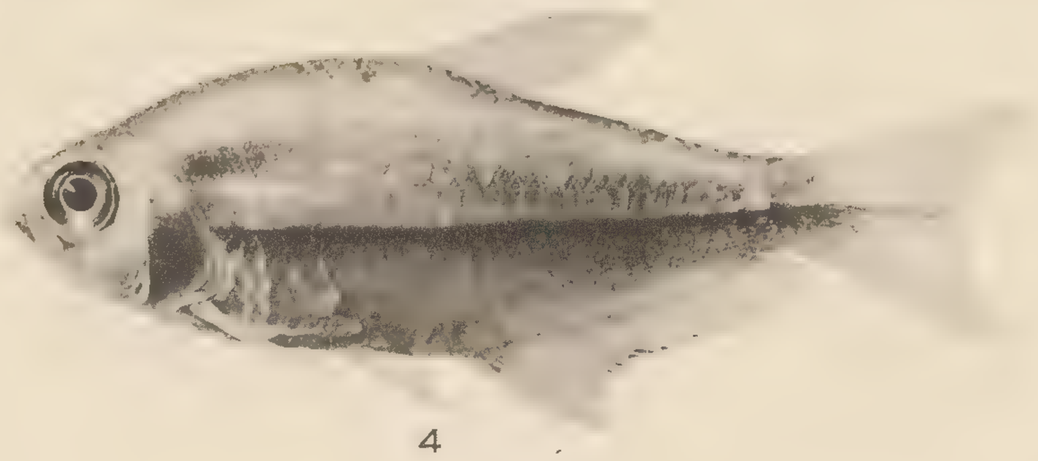
HELIOTYPE CO. BOSTON

PLATE 60.

PLATE 60.

Fig. 1. Nematobrycon amphiloxus Eigenmann & Wilson.
San Juan Basin, Colombia.
Fig. 2. Nematobrycon amphiloxus Eigenmann & Wilson.
San Juan Basin, Colombia.
Fig. 3. Nematobrycon palmeri Eigenmann.
San Juan Basin, Colombia.
Fig. 4. Nematobrycon palmeri Eigenmann.
San Juan Basin, Colombia.



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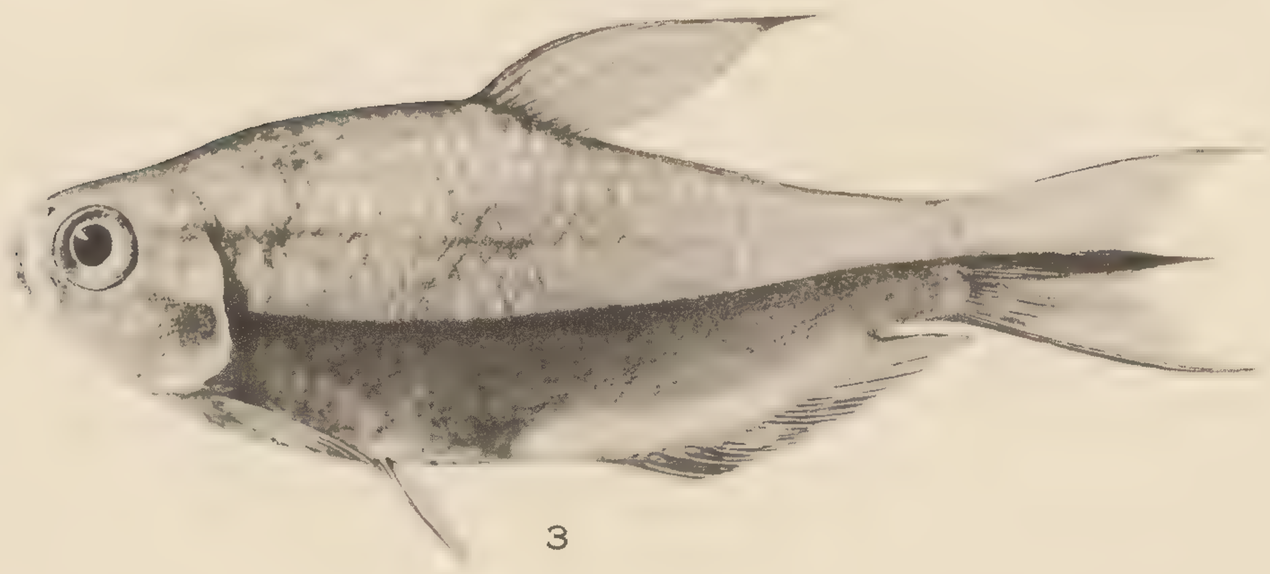

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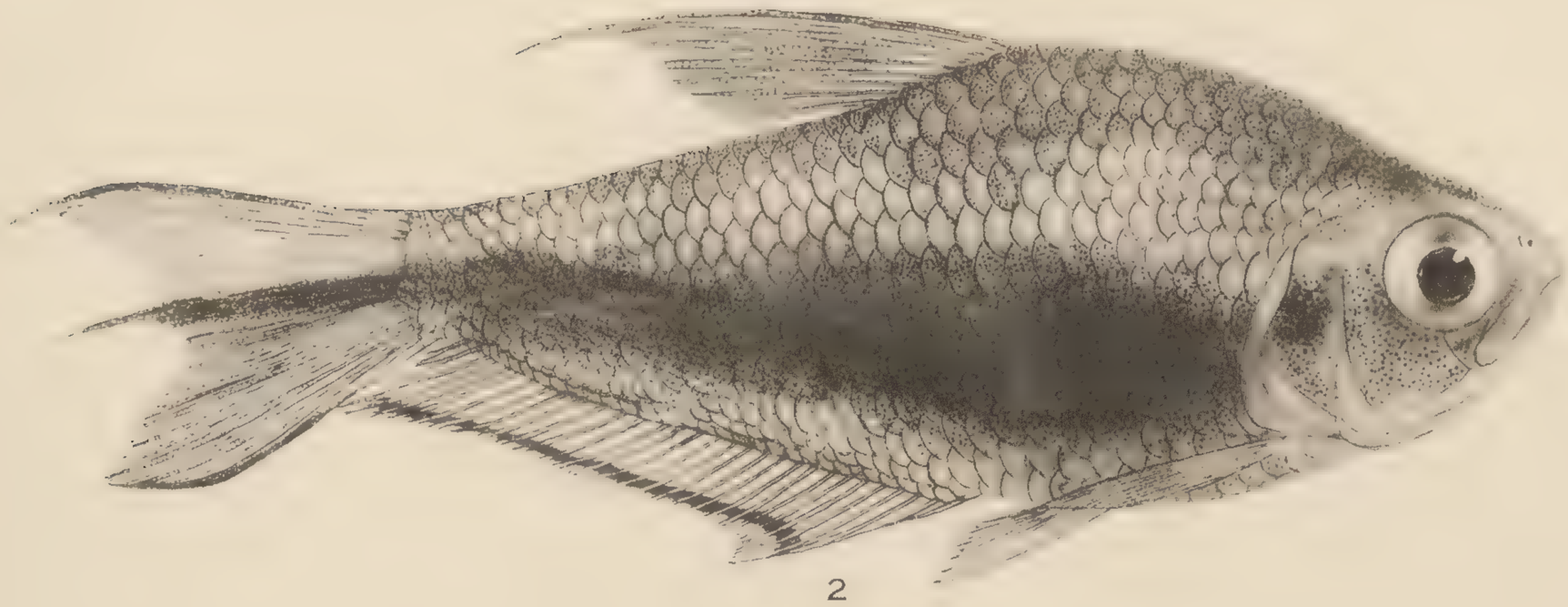

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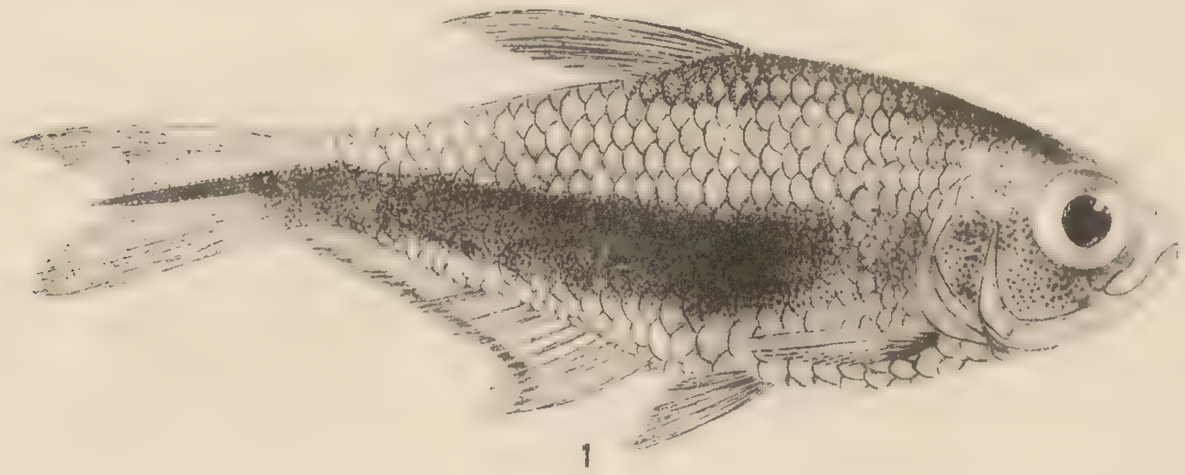

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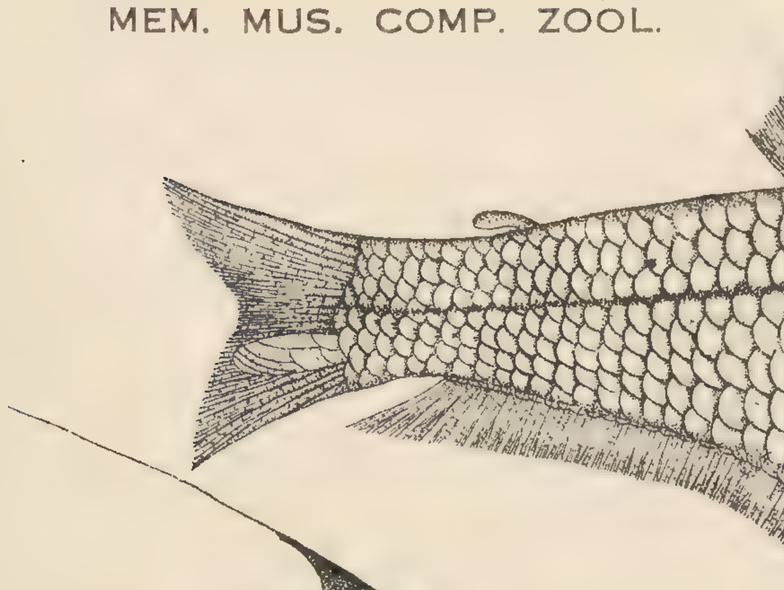
HELIOTYPE CO., BOSTON

PLATE **61.**

PLATE 61.

Fig. 1. Poptella longipinnis (Popta).
—— I. U. M. *Paratype.* 50 mm. Dutch Guiana.
Fig. 2. Astyanacinus moori (Boulenger).
From a specimen in the Academy nat. sci. Philadelphia.
Fig. 3. Astyanax regani Meek.
6257 F. M. 130 mm. Las Cañas, Costa Rica.
Fig. 4. Diapoma speculiferum Cope.
From the *Type* in the Academy nat. sci. Philadelphia.



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HELIOTYPE CO., BOSTON

PLATE 62.

PLATE 62.

Fig. 1. Astyanax bimaculatus (Linné).
21024 M. C. Z. 141 mm. Para, Brazil.
Fig. 2. Astyanax bimaculatus (Linné).
After *Tetragonopterus jacuhiensis* Cope.
Fig. 3. Astyanax bimaculatus lacustris (Lütken).
After Lütken.
Fig. 4. Astyanax bimaculatus (Linné).
After Steindachner.
Fig. 5. Astyanax bimaculatus paraguayensis Eigenmann.
10239 I. U. M. 30 mm. To show development of the humeral spot.
Fig. 6. Astyanax bimaculatus (Linné).
11308 I. U. M. 137 mm. Trinidad.

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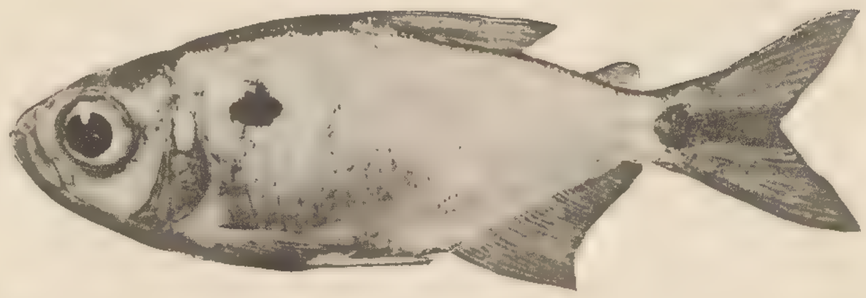

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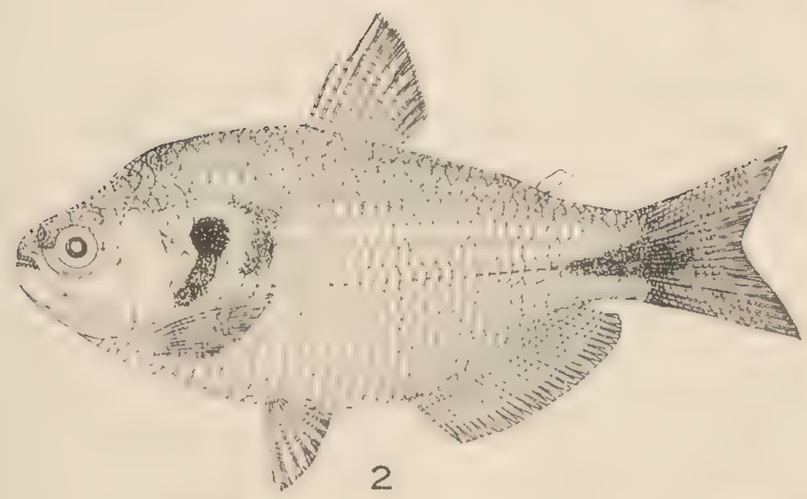

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HELIOTYPE CO., BOSTON

PLATE 63.

PLATE 63.

Fig. 1. Gephyrothorax chocoensis Eigenmann ♂.
Fig. 2. Gephyrothorax caucanus Eigenmann ♀?
Fig. 3. Gephyrothorax melanocheir Eigenmann ♂.
Fig. 4. Gephyrothorax atracaudatus Meek & Hildebrand ♂.

HELIOTYPE CO., BOSTON

PLATE 64.

PLATE 64.

Fig. 1. Hollandichthys multifasciatus (Eigenmann & Norris).
9288 I. U. M. 70 mm. *Type*. Cubatão, Southeastern Brazil.
Fig. 2. Scales of the same.
Fig. 3. Pseudochalceus lineatus Kner.
After Kner & Steindachner.
Fig. 4. Mouth of Hollandichthys.
Fig. 5. Mouth of Pseudochalceus.
Fig. 6. Astyanacinus moorii (Boulenger).
From a specimen in the Academy nat. sci. Philadelphia.
Fig. 7. Scissor macrocephalus Günther.
From the *Type* in British Museum.

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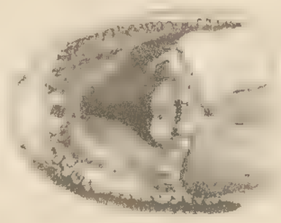

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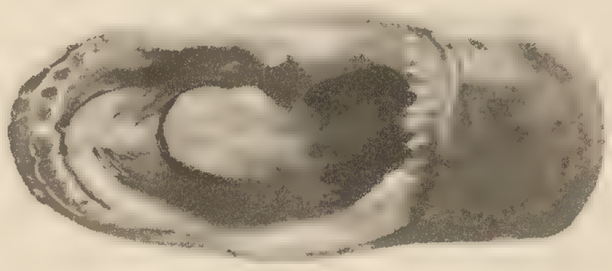

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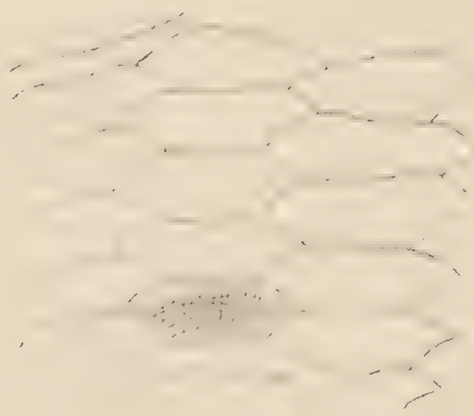

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HELIOTYPE CO., BOSTON

PLATE 65.

PLATE 65.

Fig. 1. Astyanax gymnogenys Eigenmann.
3250 C. M. 87 mm. *Type.* Porto União, Brazil.
Fig. 2. Deuterodon iguape Eigenmann.
9265 I. U. M. 90 mm. *Type.* Iguapé, Brazil.

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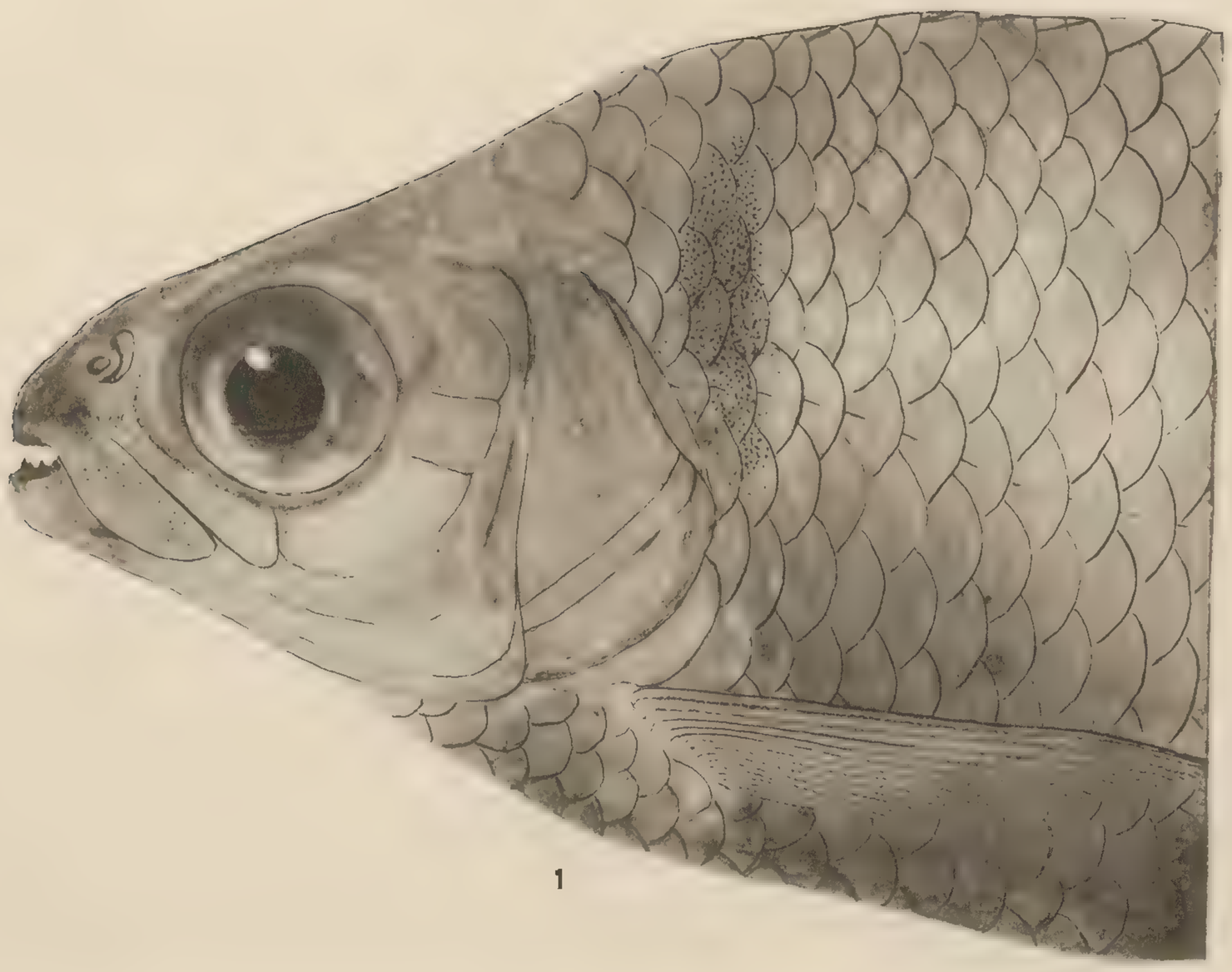

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HELIOTYPE CO., BOSTON

PLATE 66.

PLATE 66.

Fig. 1. Henochilus wheatlandi Garman.
21109 M. C. Z. 420 mm. *Type.*
Fig. 2. Fifth left premaxillary tooth.
Fig. 3. One of the inner premaxillary teeth.
Fig. 4. Fifth right dentary tooth.
Fig. 5. Astyanax nicaraguensis Eigenmann & Ogle.
From a specimen in the U. S. N. M.
Fig. 6 and 7. Astyanax nicaraguensis Eigenmann & Ogle.
Maxillaries.
Fig. 8. Deuterodon nasutus (Meek).
11600 I. U. M. 100.5 mm. *Paratype.* Managua.

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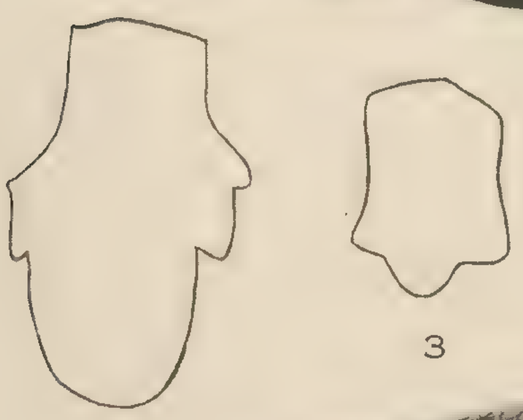

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HELIOTYPE CO., BOSTON

PLATE 67.

PLATE 67.

Fig. 1. Mimagoniates microlepis (Steindachner).
21026. 43 mm. Brazil.
Fig. 2. Diapoma speculiferum Cope.
21580 Acad. Nat. Sci. Phil. 35 mm. *Type.* Jacuhy, Brazil.
Fig. 3. Bryconamericus scopiferus guaitarae Eigenmann & Henn.
5474 C. M. 76 mm. *Type.* Patia, Colombia.
Fig. 4. Pterobrycon landoni Eigenmann.
5051 C. M. 25 mm. *Type.* Boca de Raspadura.

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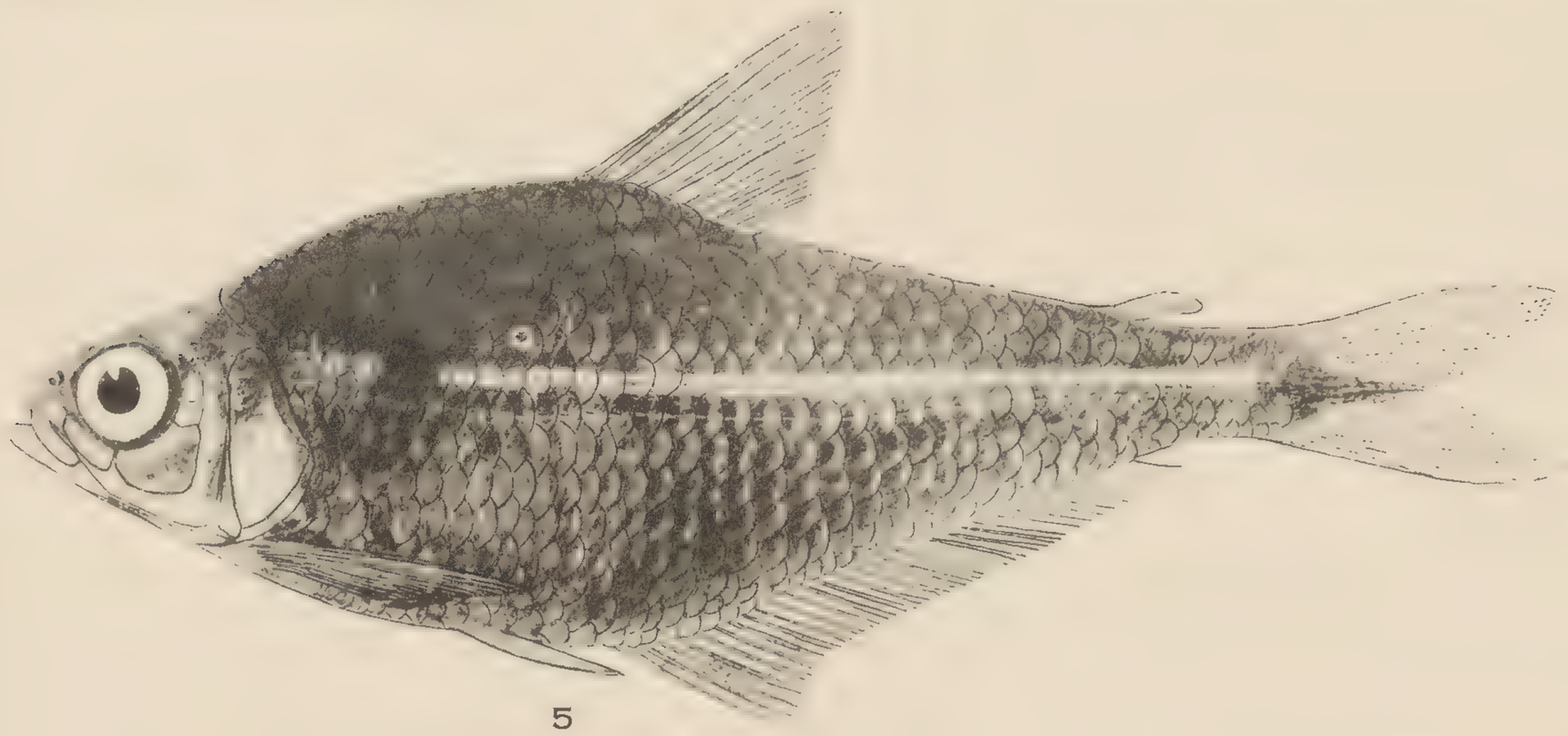
HELIOTYPE CO., BOSTON

PLATE 68.

PLATE 68.

Fig. 1. Bryconamericus eigenmanni (Evermann & Kendall).
11071 I. U. M. 75 mm. (about). *Paratype.* Rio Primero, Cordoba.
Fig. 2. Phenacogaster pectinatus (Cope).
Maxillary and premaxillary dentition.
Fig. 3. Phenacogaster pectinatus (Cope).
Scales of breast.
Fig. 4. Phenacogaster pectinatus (Cope).
Ventral view.
Fig. 5. Phenacogaster pectinatus (Cope).
20831. Obidos, Brazil.



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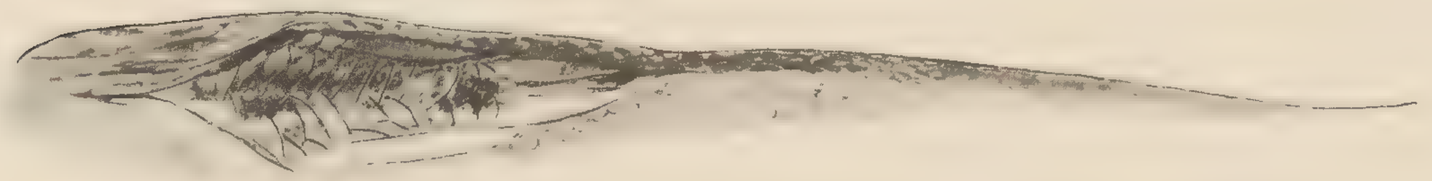

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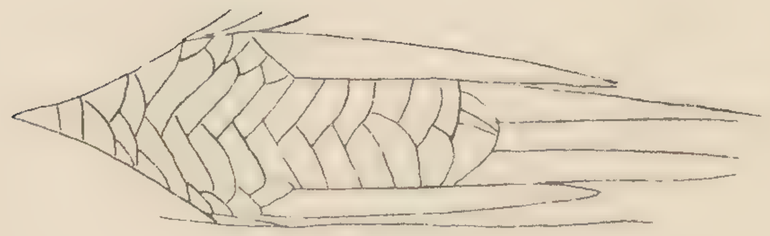

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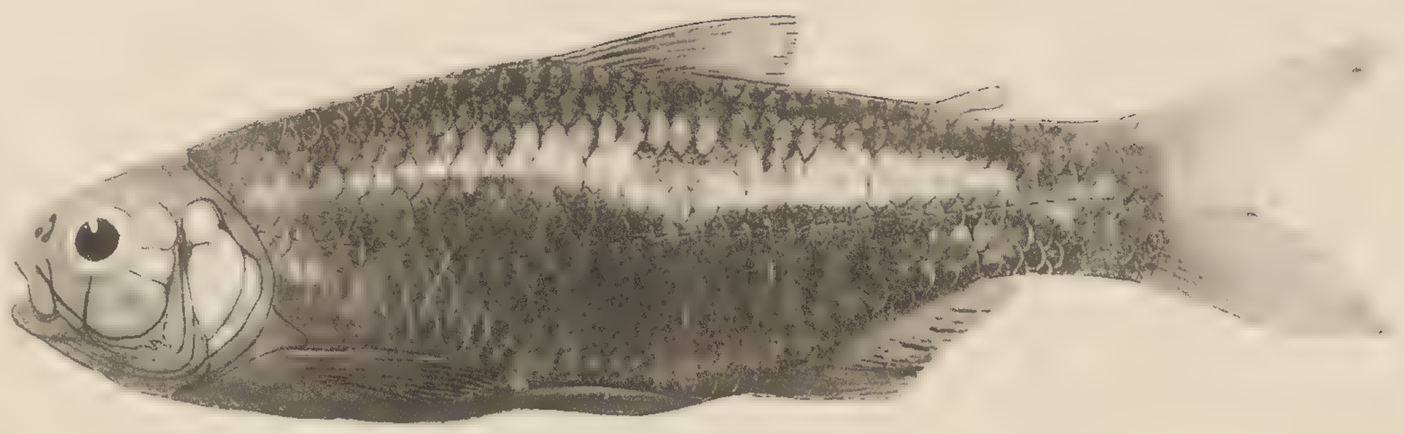

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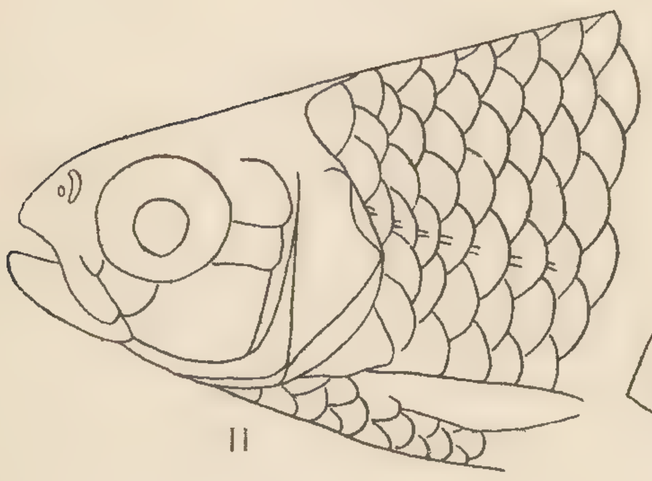
HELIOTYPE CO., BOSTON

PLATE 69.

PLATE 69.

Fig. 1 and 2. Hemibrycon ipanquianus (Cope).
21114 Acad. nat. sci. Philadelphia. Camera outline of the *Type*.
Fig. 3. Astyanax longior (Cope). Camera outline of the *Type*.
Fig. 4. Open jaws of same.
Fig. 5. Bryconamericus phoenicopterus (Cope).
8074, Acad. nat. sci. Philadelphia. Camera outline of a *Cotype*.
Fig. 6. Maxillary of Astyanax aurocaudatus Eigenmann.
Fig. 7. Bryconamericus simus (Boulenger).
11598 I. U. M. Camera outline of a *Cotype*.
Fig. 8. Mandible Astyanax aurocaudatus Eigenmann.
Fig. 9. Mandibulary teeth of a Bryconamericus phoenicopterus (Cope).
Fig. 10. Astyanax aurocaudatus Eigenmann. Arrangement of the premaxillary teeth.
Fig. 11. Bryconamericus diaphanus (Cope).
21217 Acad. nat. sci. Philadelphia. Camera outline of a *Cotype*.
Fig. 12. Dentition of the same, as seen from the side.
Fig. 13. Bryconamericus eigenmanni (Evermann & Kendall).
11071 I. U. M. Camera outline of a *Cotype*.



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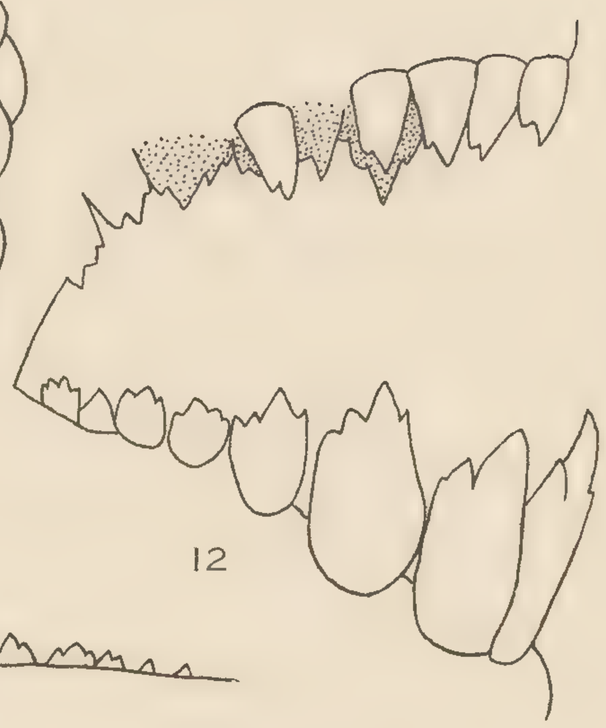

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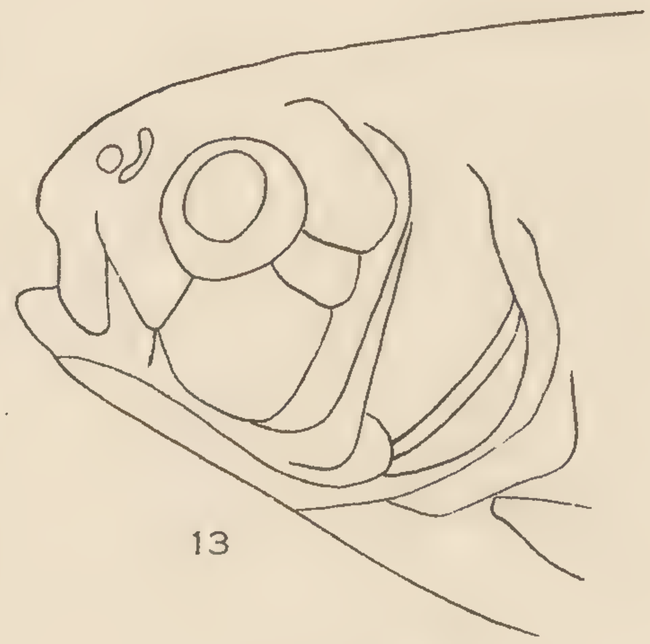

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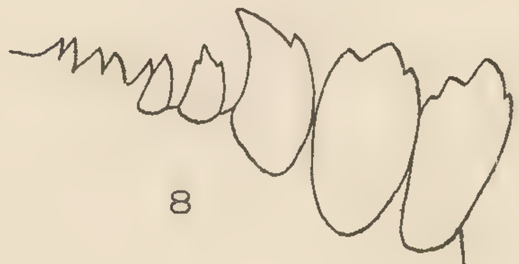

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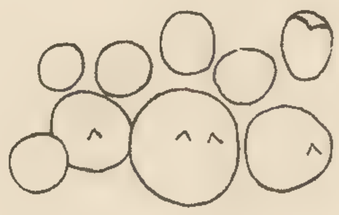

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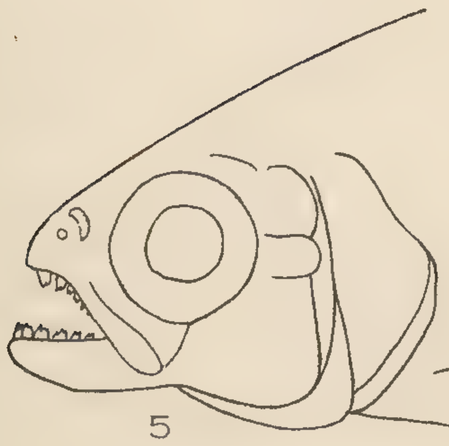

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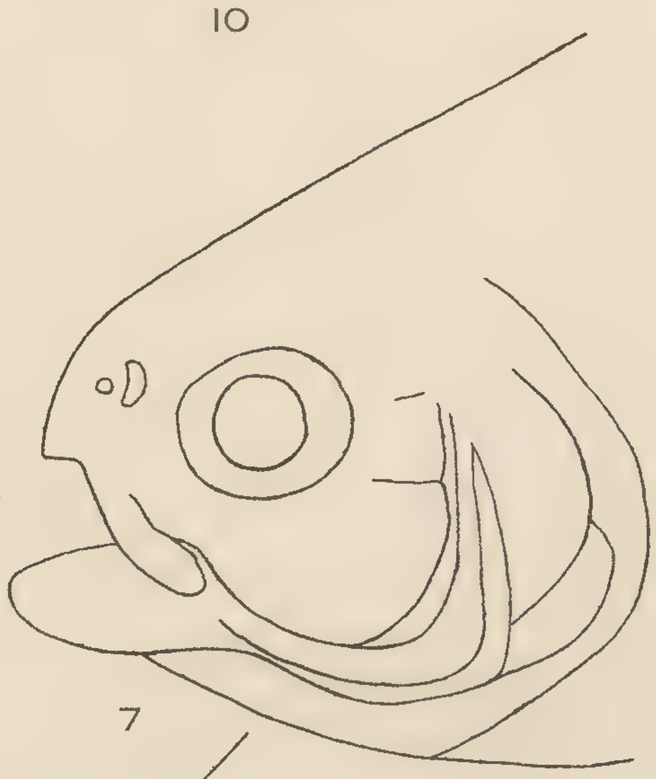

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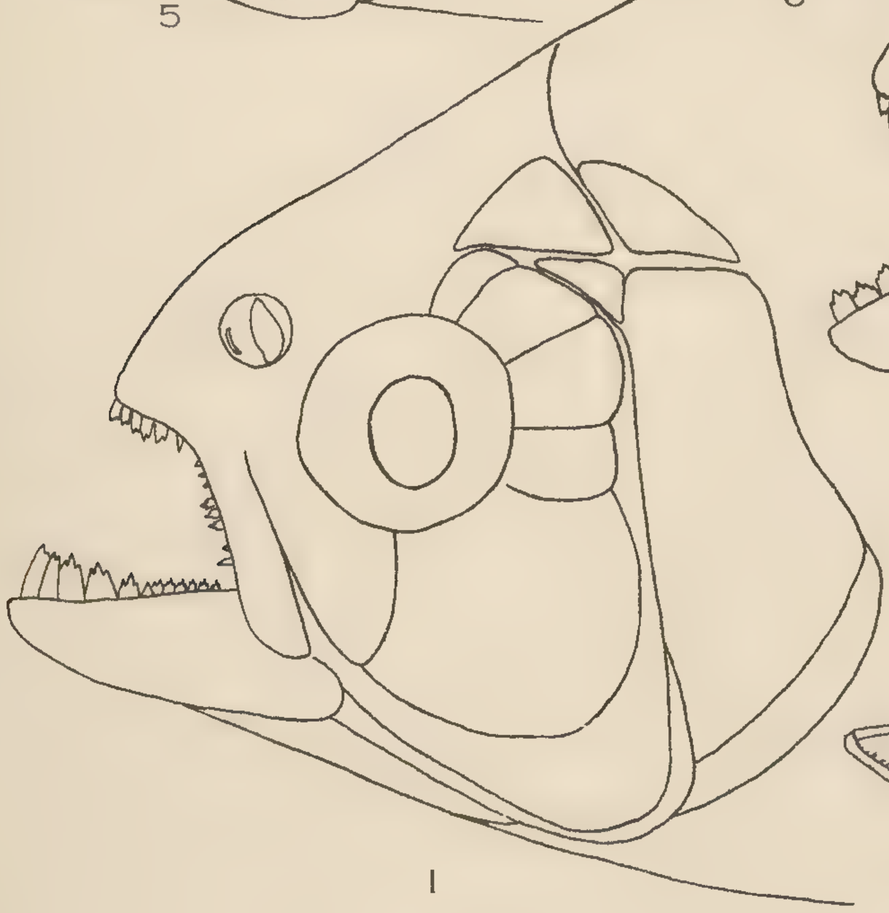

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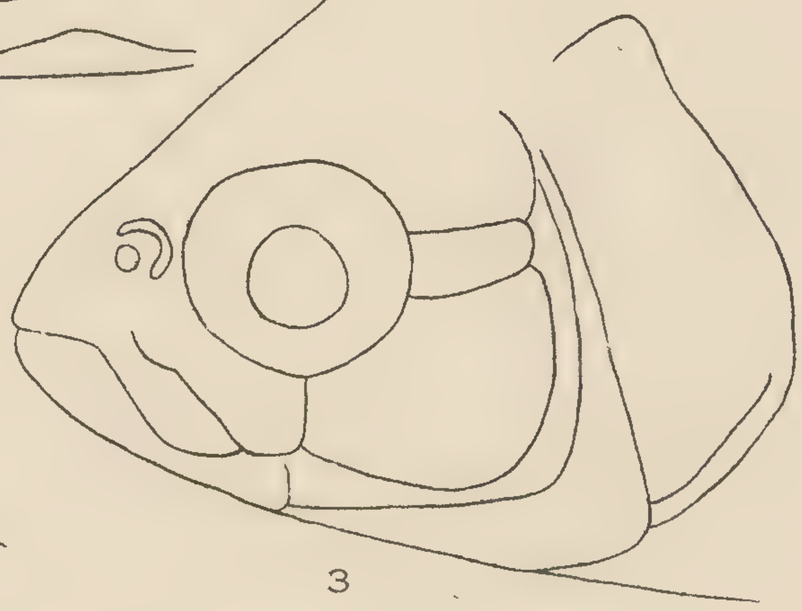

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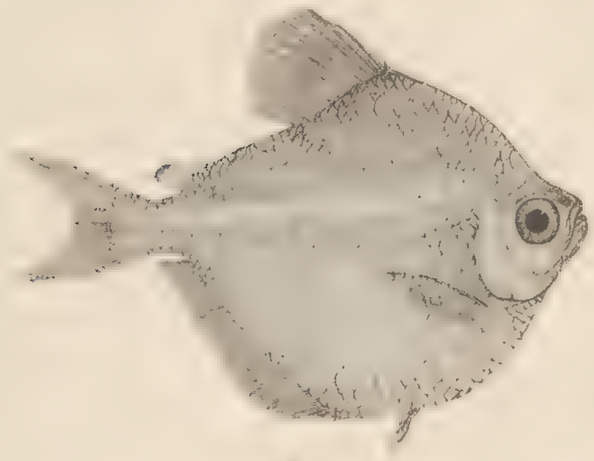
4

HELIOTYPE CO., BOSTON

PLATE 70.

PLATE 70.

Fig. 1. Stethoprion erythrops Cope.
Fig. 2. Ephippicharax orbicularis C.V.
Fig. 3. Ephippicharax franciscensis Eigenmann (adult).
Fig. 4. Brachychalcinus retrospina Boulenger (after Boulenger).
Fig. 5. Ephippicharax franciscensis Eigenmann (Young).



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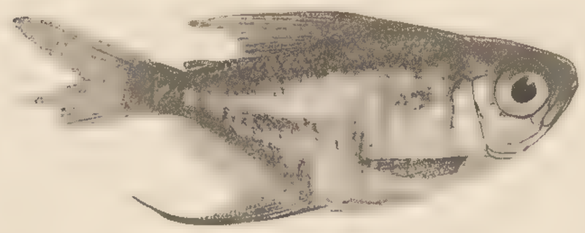

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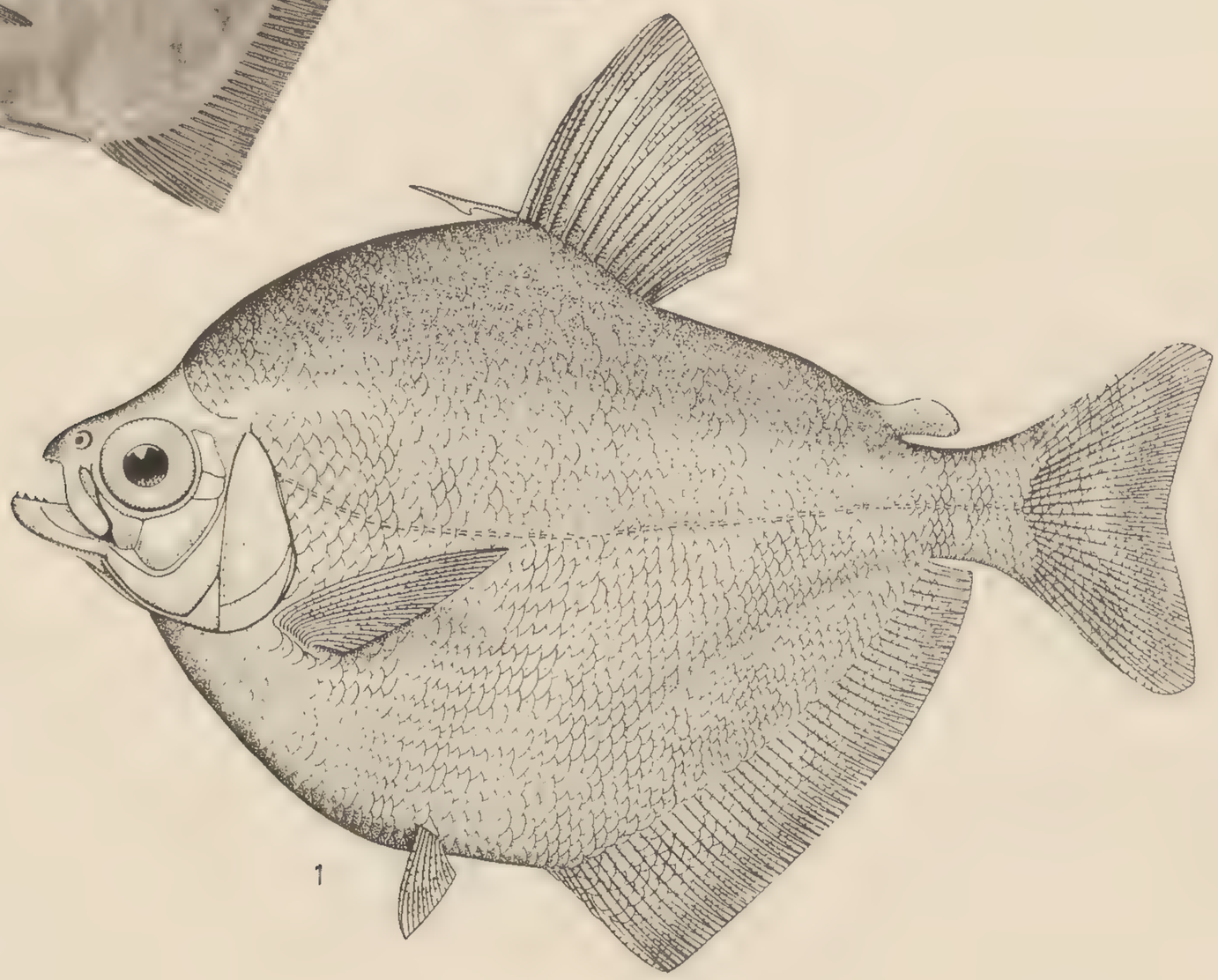


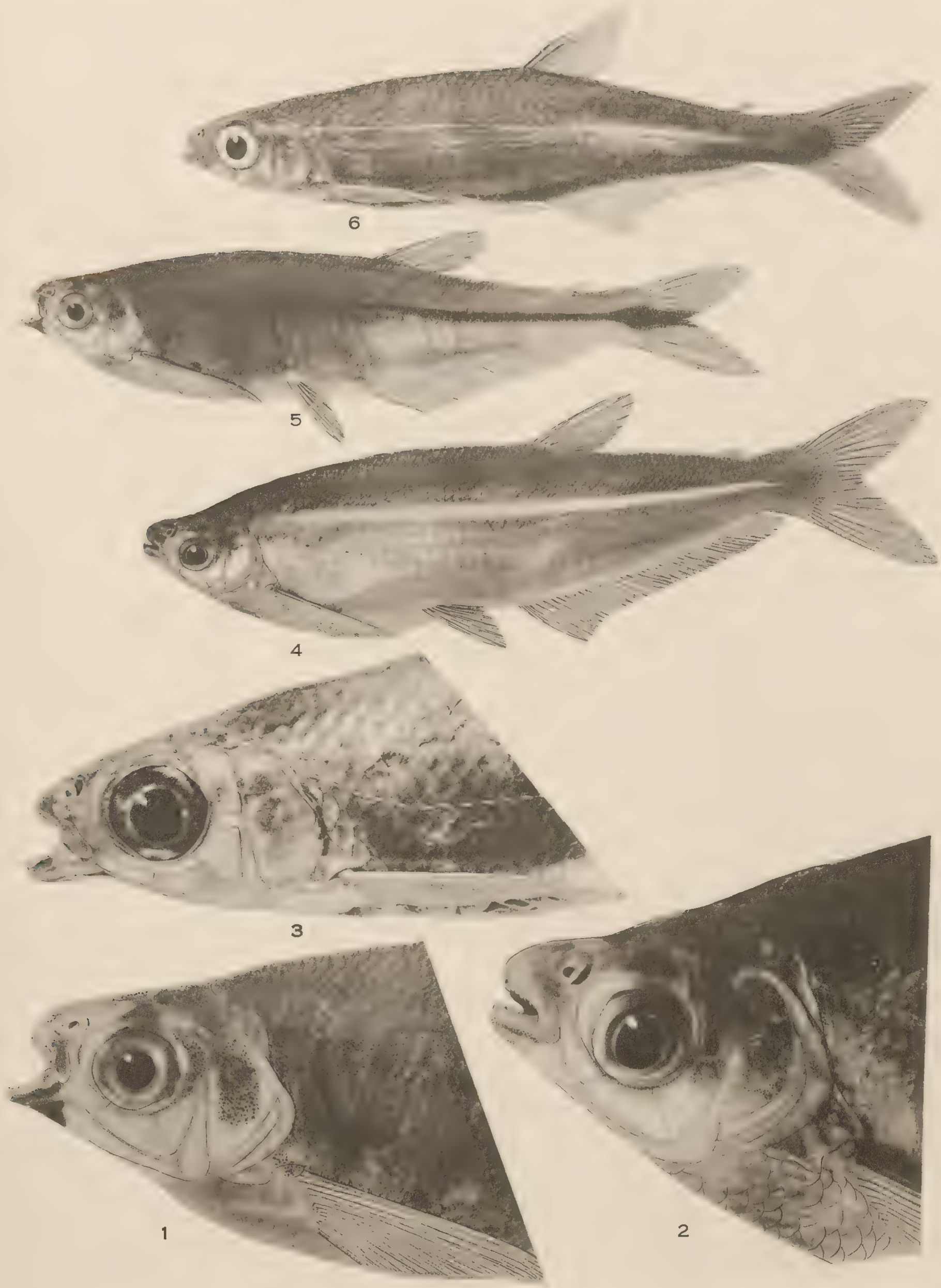
1

HELIOTYPE CO., BOSTON.

PLATE 71.

PLATE **71**.

Fig. 1. Piabucus melanostomus Holmberg (Head).
Fig. 2. Piabucus dentatus? (Koelreuter) (Head).
Fig. 3. Iguanodectes tenuis Cope (Head).
Fig. 4. Piabucus dentatus (Koelreuter).
Fig. 5. Piabucus melanostomus Holmberg.
Fig. 6. Iguanodectes tenuis Cope.



HELIOTYPE CO., BOSTON

PLATE 72.

PLATE 72.

Fig. 1–6. Parastremma sadina Eigenmann.

HELIOTYPE CO., BOSTON

PLATE **73.**

PLATE **73**.

Fig. 1. Rhoadsia eigenmannii (Meek).
Fig. 2. Rhoadsia minor Eigenmann and Henn.
Fig. 3. Rhoadsia altipinnis Fowler.

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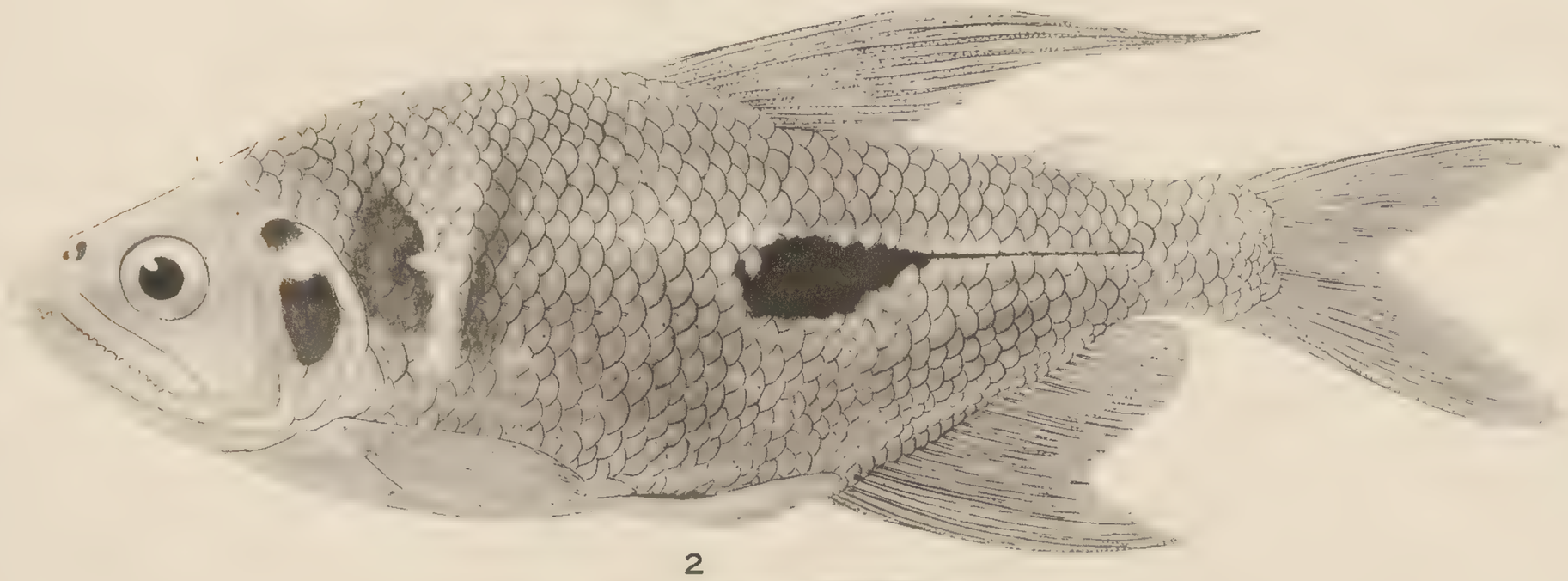

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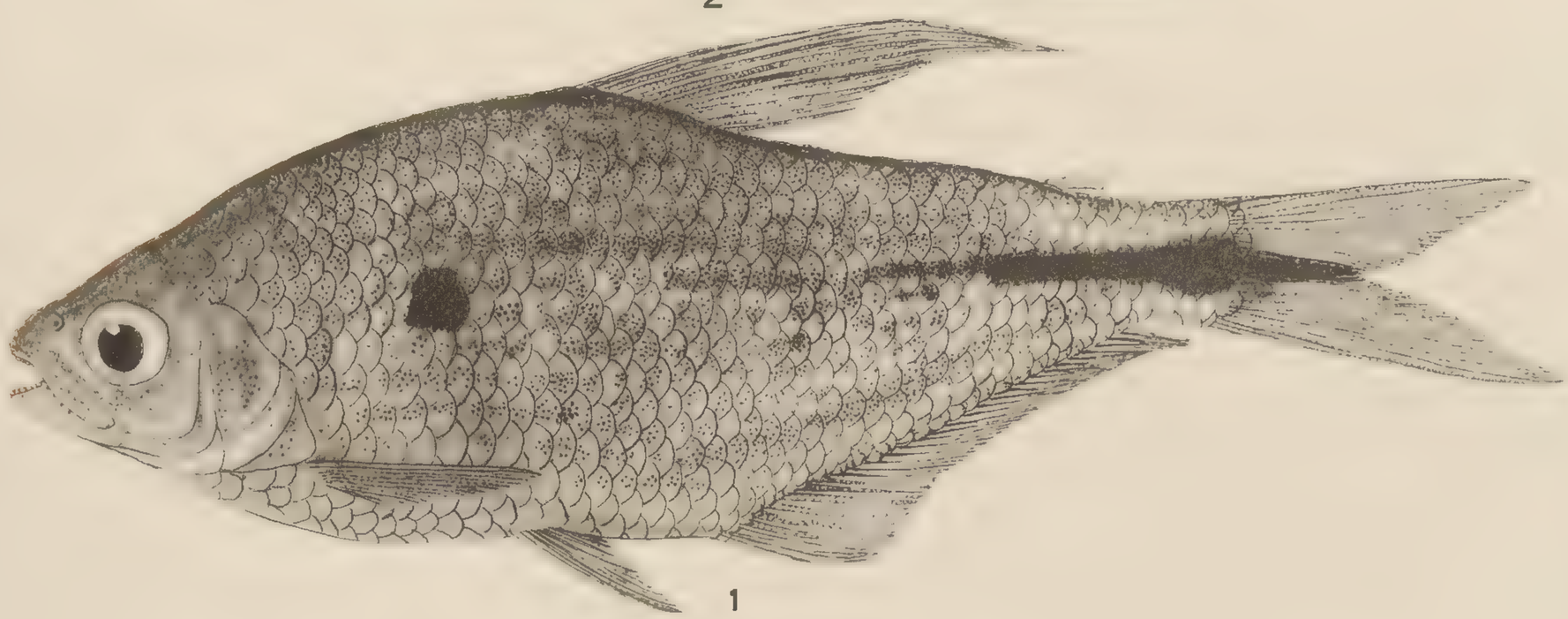

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HELIOTYPE CO., BOSTON

PLATE 74.

PLATE 74.

Rhoadsia altipinna Fowler.

Fig. 1, 2, 3, 4, 6, 7, 9, 13, 14.
Teeth on premaxillary, maxillary and mandible.

Parastremma sadina Eigenmann.

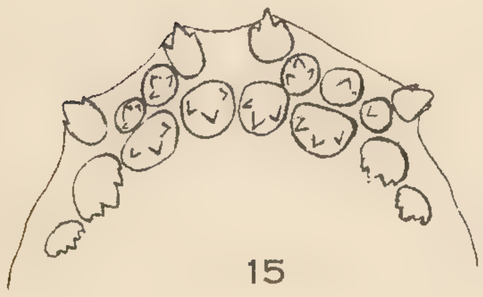
Fig. 5, 8, 10, 11, 12, 15, 16, 17.
Teeth on premaxillary, maxillary and mandible.

HELIOTYPE CO., BOSTON

PLATE 75.

PLATE 75.

Fig. 1. Argopleura magdalenensis (Eigenmann).
Mandibular dentition.
Fig. 2. Bryconamericus caucanus Eigenmann.
Mandibular dentition (from side).
Fig. 3. Bryconamericus exodon Eigenmann.
Mandibular dentition (from side).
Fig. 4. Argopleura magdalenensis (Eigenmann).
Mandibular dentition (from side).
Fig. 5. Bryconamericus exodon Eigenmann.
Premaxillary.
Fig. 6. Bryconamericus stramineus Eigenmann.
Mandibular dentition (from side).
Fig. 7. Bryconamericus stramineus Eigenmann.
Outline of premaxillary teeth (from above).
Fig. 8. Bryconamericus stramineus Eigenmann.
Maxillary.
Fig. 9. Bryconamericus caucanus Eigenmann.
Outline of premaxillary teeth (from above).
Fig. 9a. Bryconamericus iheringii (Boulenger).
Maxillary.
Fig. 9b. Bryconamericus iheringii (Boulenger).
Maxillary teeth (enlarged).
Fig. 10. Bryconamericus iheringii (Boulenger).
Head showing maxillary and suborbitals.
Fig. 11. Bryconamericus caucanus Eigenmann.
Maxillary.
Fig. 12. Argopleura magdalenensis (Eigenmann).
Maxillary.
Fig. 13. Bryconamericus exodon Eigenmann.
Maxillary.
Fig. 14. Argopleura magdalenensis (Eigenmann).
Premaxillary dentition.
Fig. 15. Bryconamericus exodon Eigenmann.
Premaxillary dentition (both sides).



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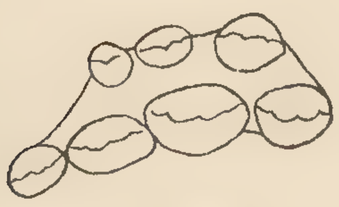

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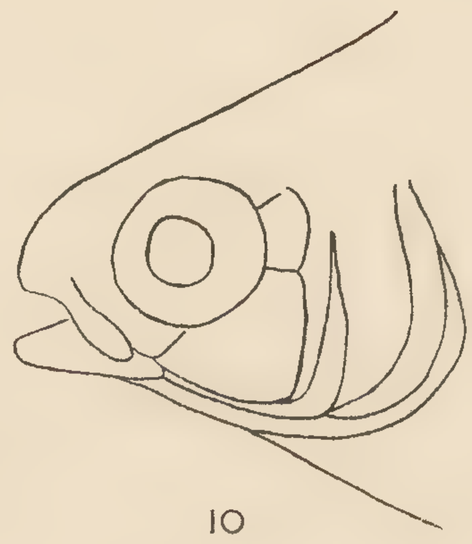

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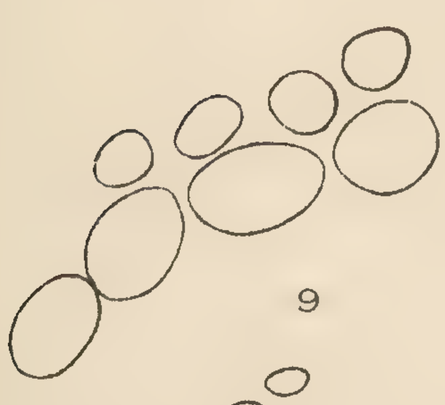

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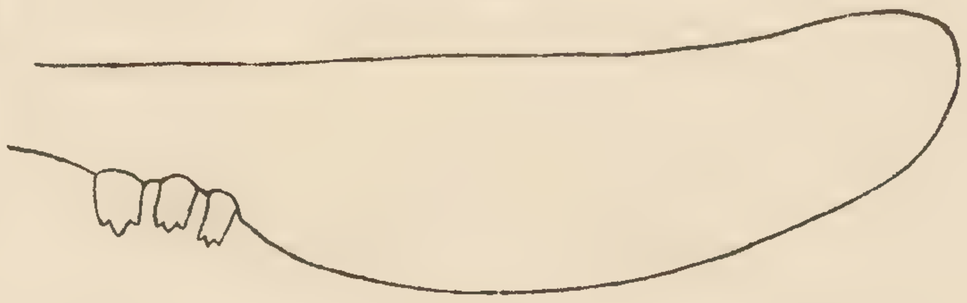

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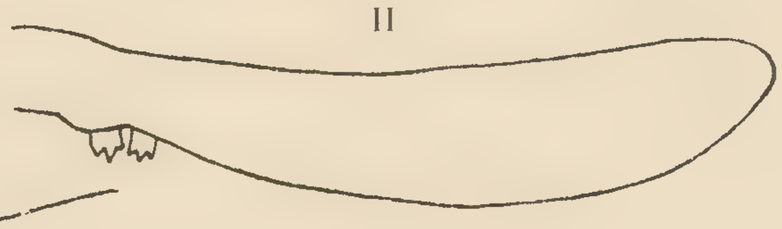

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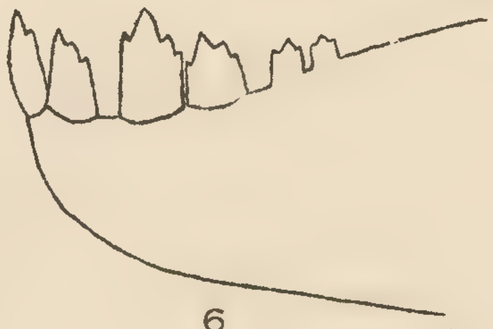

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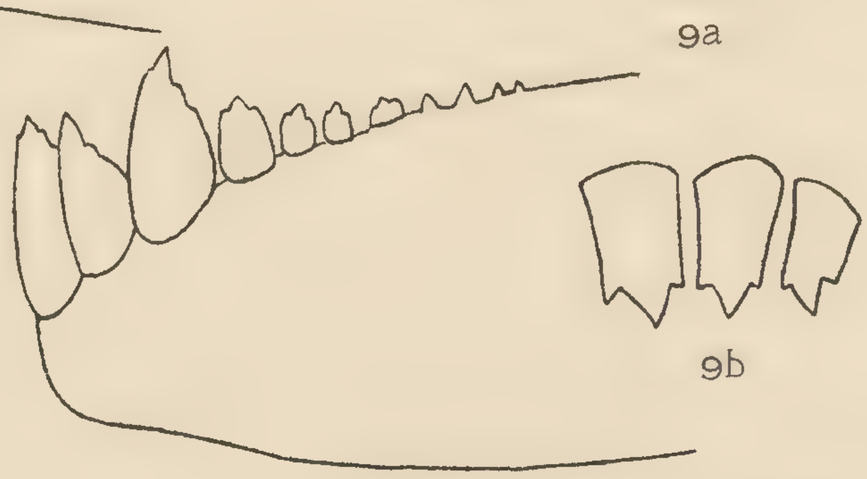

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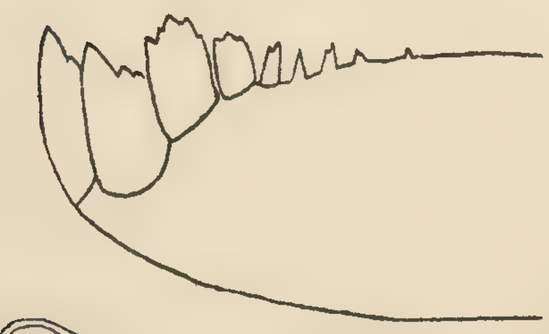

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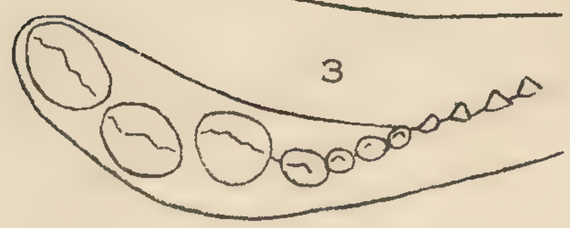

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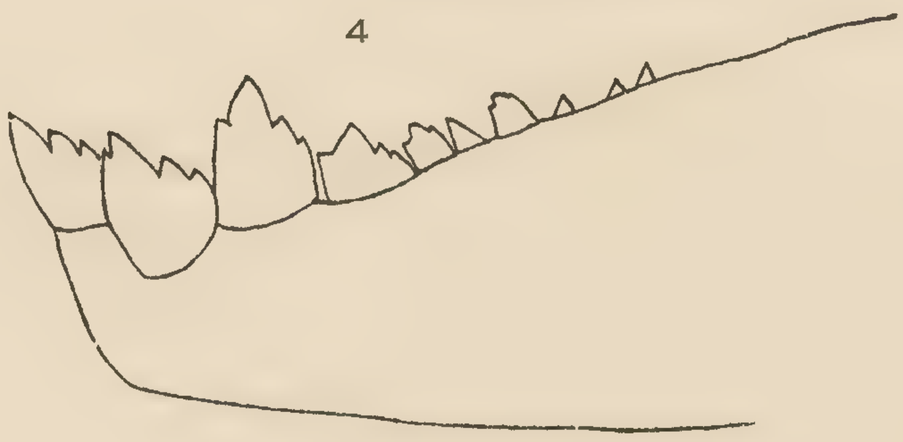


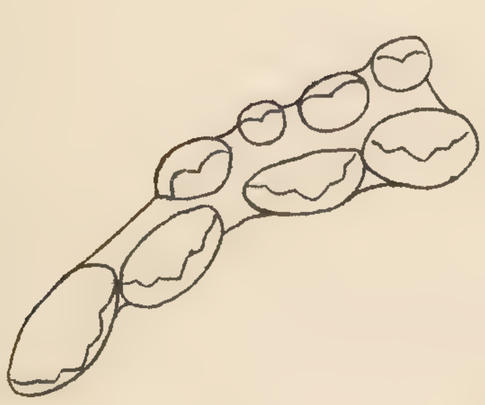
2

HELIOTYPE CO., BOSTON

PLATE 76.

PLATE 76.

Fig. 1. Hemibrycon guppii (Regan).
Maxillary dentition.
Fig. 2. Hemibrycon boquiae (Eigenmann).
Maxillary dentition.
Fig. 3. Hemibrycon boquiae (Eigenmann).
Mandibular dentition (half) from side.
Fig. 4. Hemibrycon boquiae (Eigenmann).
Mandibular dentition (half) from above.
Fig. 5. Hemibrycon boquiae (Eigenmann).
Premaxillary dentition.
Fig. 6. Hemibrycon tolimae (Eigenmann).
Maxillary dentition.
Fig. 7. Hemibrycon tolimae (Eigenmann).
Mandibular dentition (half) from side.
Fig. 8. Hemibrycon tolimae (Eigenmann).
Premaxillary dentition (half).
Fig. 9. Hemibrycon tolimae (Eigenmann).
Mandibular dentition.
Fig. 10. Hemibrycon dentatus (Eigenmann).
Premaxillary dentition (half).
Fig. 11. Hemibrycon tolimae Eigenmann).
Premaxillary dentition (half) from below.
Fig. 12. Hemibrycon dentatus (Eigenmann).
Mandibular dentition.
Fig. 13. Hemibrycon dentatus (Eigenmann).
Premaxillary dentition.
Fig. 14. Hemibrycon dentatus (Eigenmann).
Maxillary dentition.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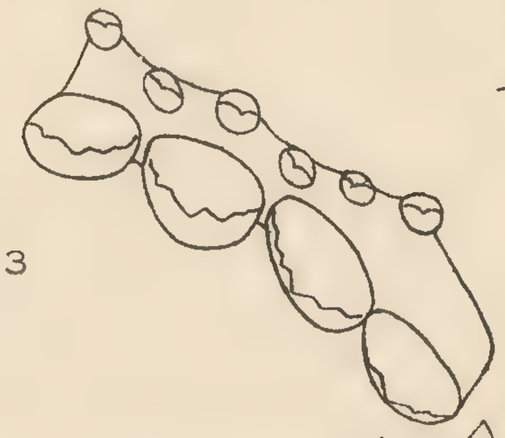
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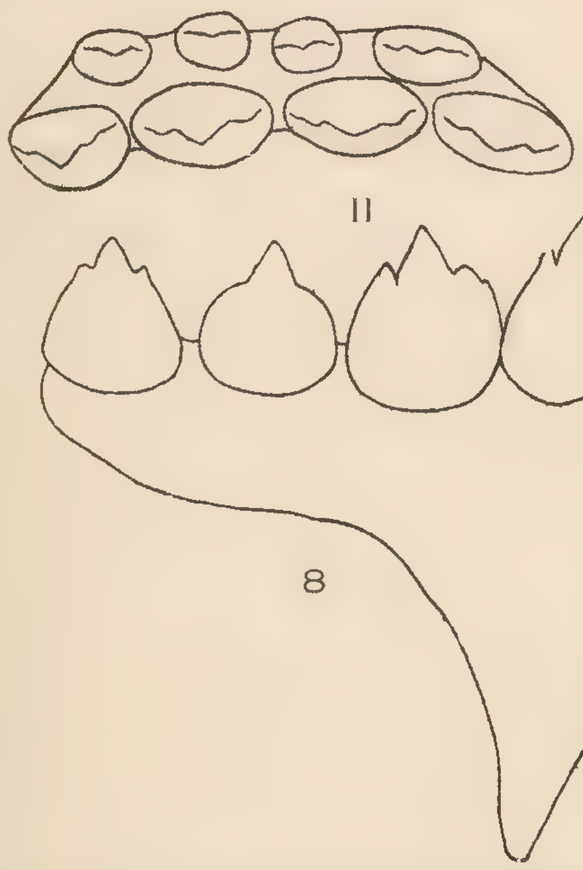
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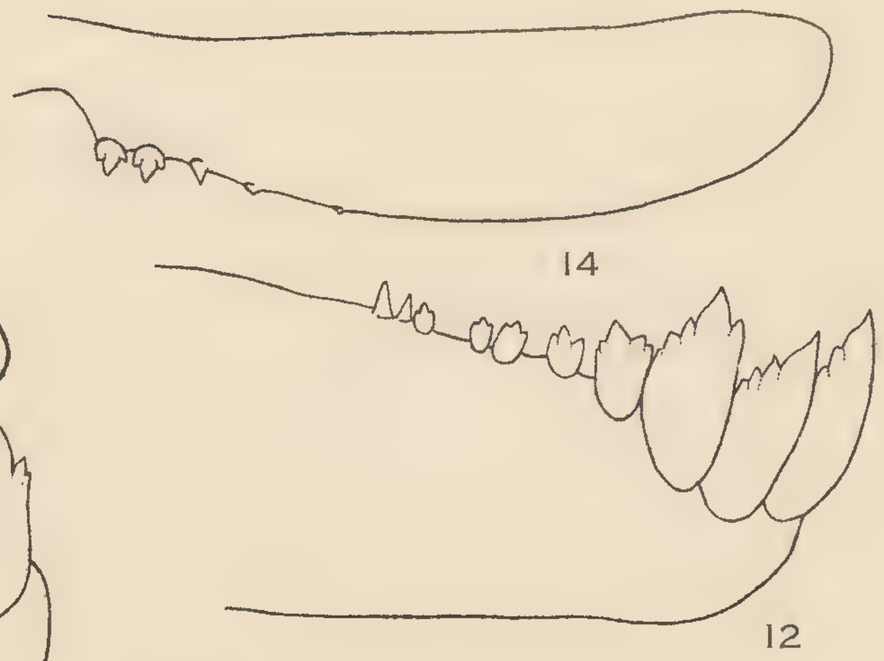
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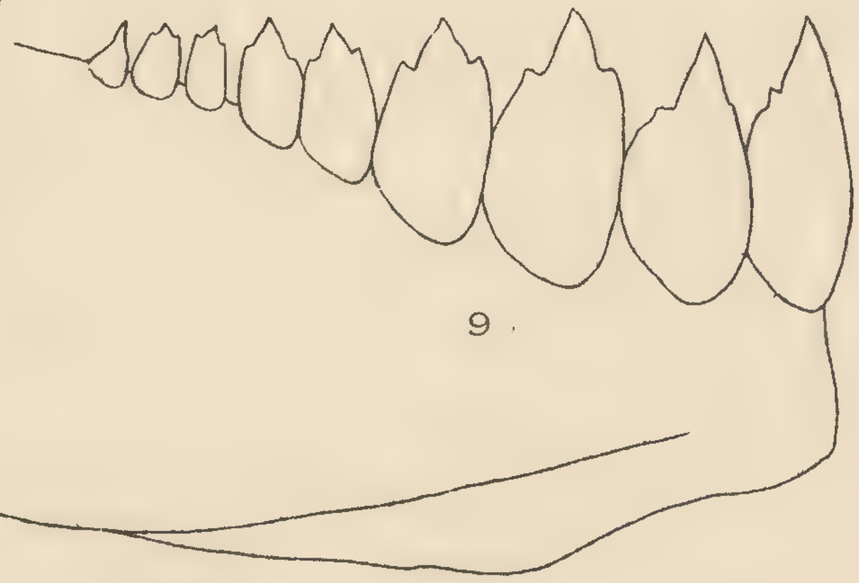
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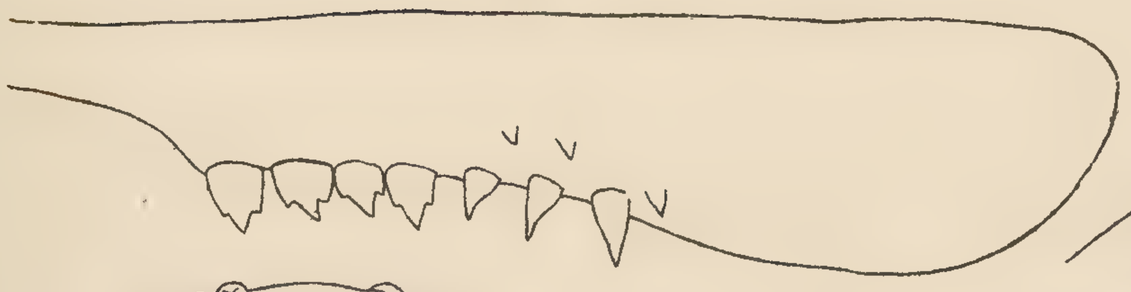
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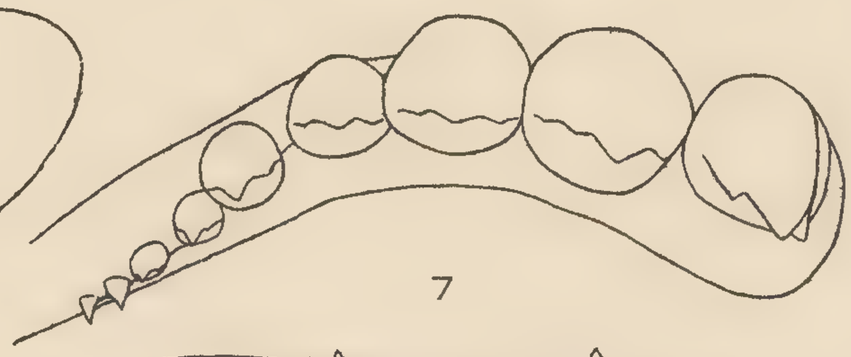
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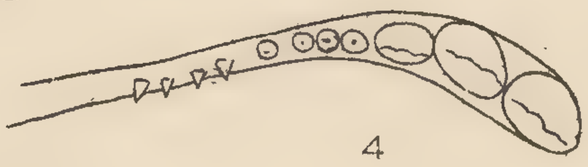
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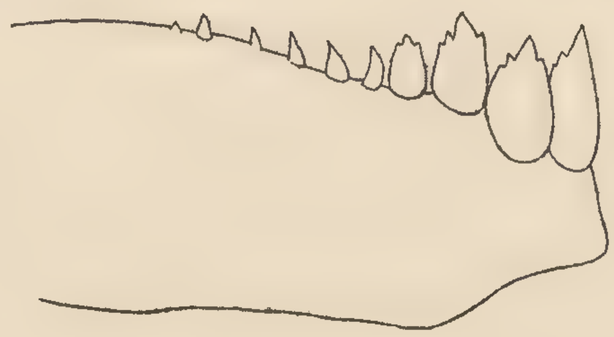
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2

1

HELIOTYPE CO., BOSTON

PLATE 77.

PLATE 77.

Fig. 1. Phenacobrycon henni (Eigenmann).
Premaxillary dentition.

Fig. 2. Phenacobrycon henni (Eigenmann).
Mandibular dentition.

Fig. 3. Bryconamericus scopiferus Eigenmann.
Premaxillary teeth (from below).

Fig. 4. Phenacobrycon henni (Eigenmann).
Maxillary dentition.

Fig. 5. Bryconamericus scopiferus Eigenmann.
Mandibulary teeth (from above).

Fig. 6. Bryconamericus scopiferus Eigenmann.
Mandible (from side).

Fig. 7. Bryconamericus scopiferus Eigenmann.
Maxillary.

Fig. 8. Bryconamericus scopiferus Eigenmann.
Maxillary.

Fig. 9. Parastremma sadina Eigenmann.
Camera outline of head of specimen 180 mm. long to show relative length of maxillary.

Fig. 10. Parastremma sadina Eigenmann.
Camera outline of head of specimen 70 mm. long to show relative length of maxillary (much enlarged).

Fig. 11. Rhoadsia altipinna Fowler.
Camera outline of head of specimen 48 mm. long to show relative length of maxillary.

Fig. 12. Parastremma sadina Eigenmann.
Camera outline of head of specimen 25 mm. long to show relative length of maxillary (much enlarged).

Fig. 13. Rhoadsia altipinna Fowler.
Camera outline of head of specimen 168 mm. long to show relative length of maxillary.

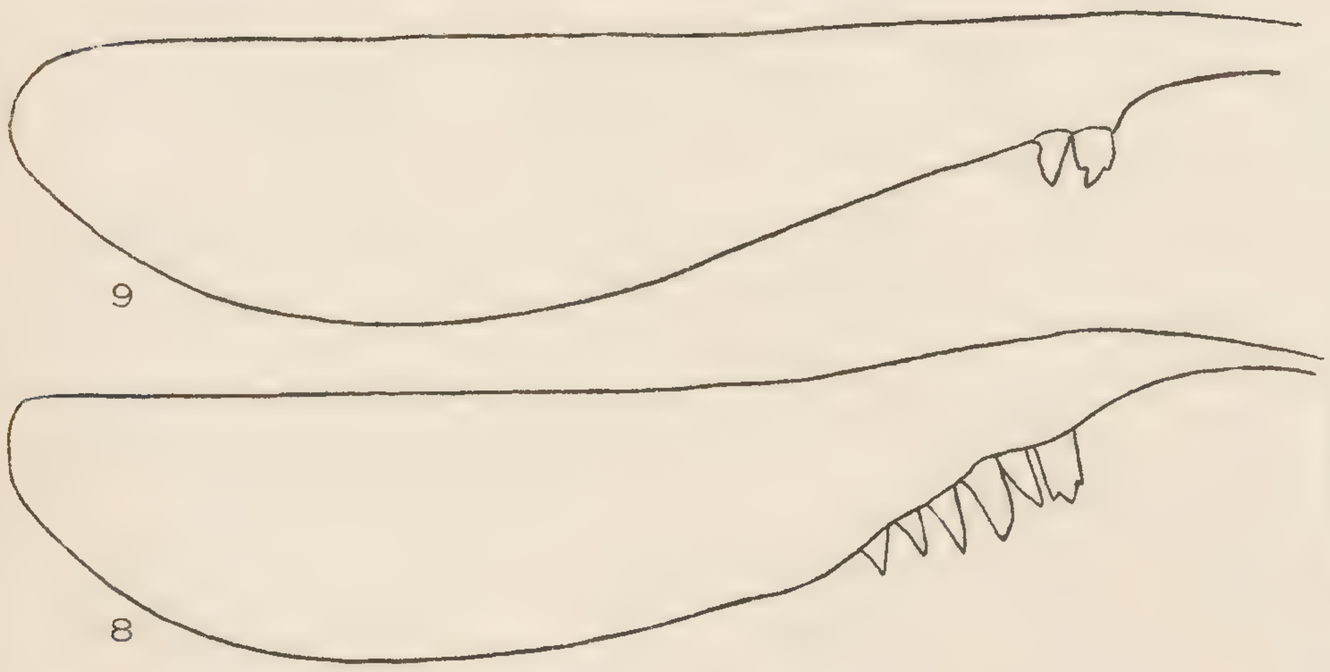
Fig. 14. Rhoadsia altipinna Fowler.
Camera outline of head of specimen 142 mm. long to show relative length of maxillary.

HELIOTYPE CO., BOSTON

PLATE 78.

PLATE 78.

Fig. 1. Hemigrammus schmardae (Steindachner).
Maxillary.
Fig. 2. Hemigrammus nanus (Lütken).
Premaxillary.
Fig. 3. Hemigrammus boulengeri Eigenmann.
Maxillary.
Fig. 4. Hemigrammus tridens Eigenmann.
Maxillary.
Fig. 5. Hyphessobrycon inconstans (Eigenmann & Ogle).
Premaxillary. (For maxillary see Plate **79,** fig. 2).
Fig. 6. Hemigrammus micropterus Meek.
Maxillary.
Fig. 7. Hemigrammus nanus (Lütken).
Maxillary.
Fig. 8. Hemigrammus unilineatus (Gill).
Maxillary.
Fig. 9. Hemigrammus ulreyi (Boulenger).
Maxillary.
Fig. 10. Hemigrammus ulreyi (Boulenger).
Premaxillary.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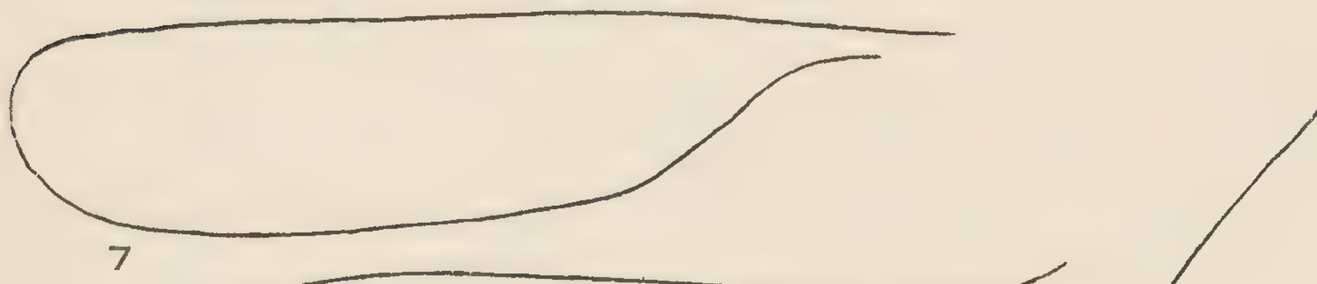
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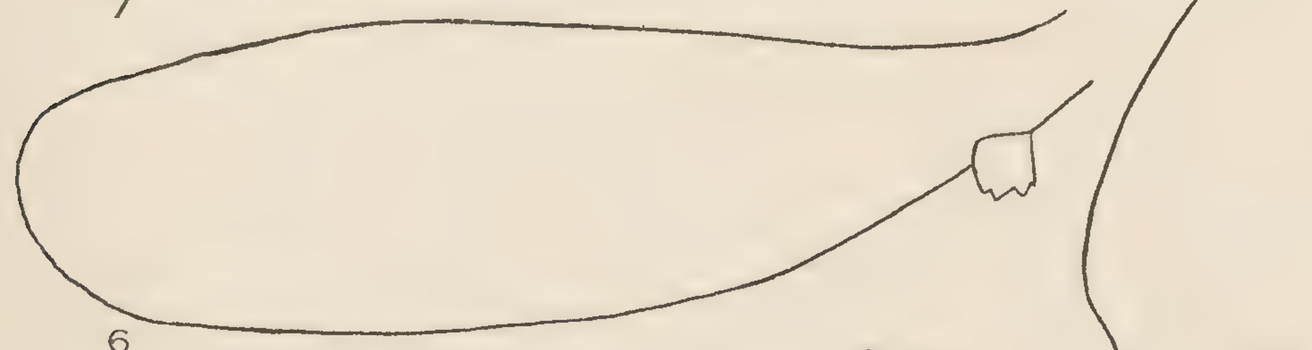
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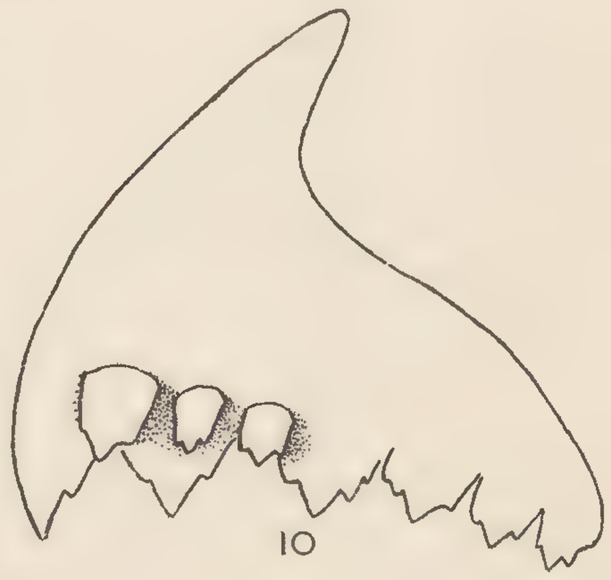
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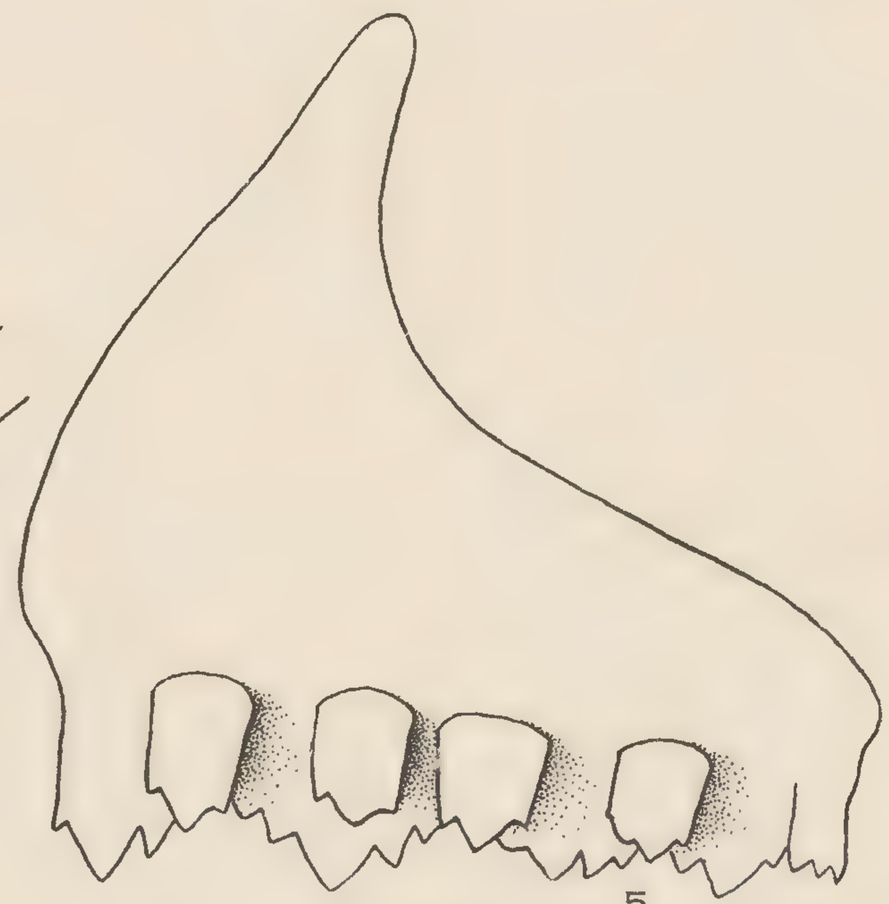
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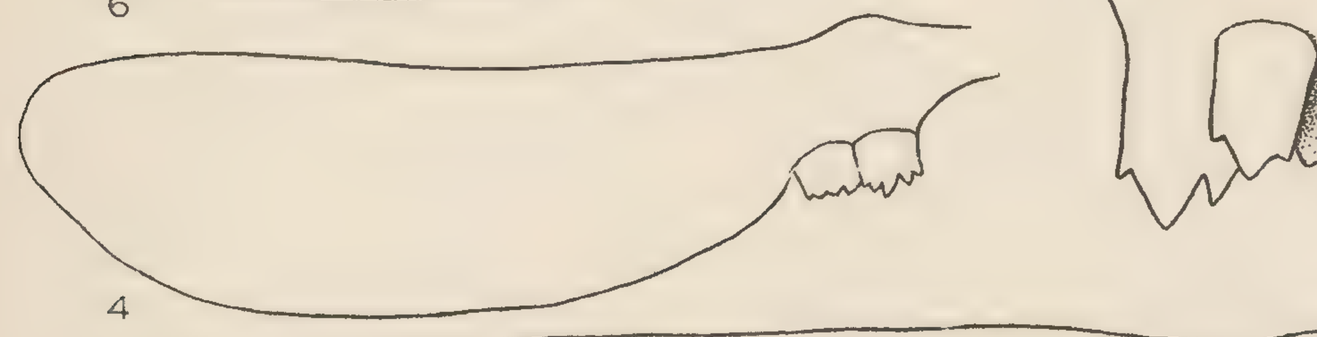
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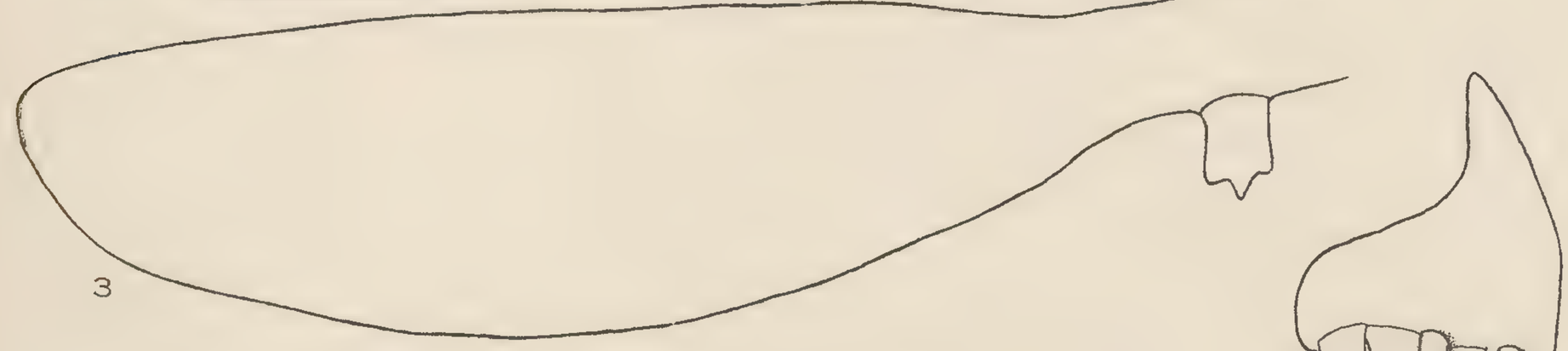
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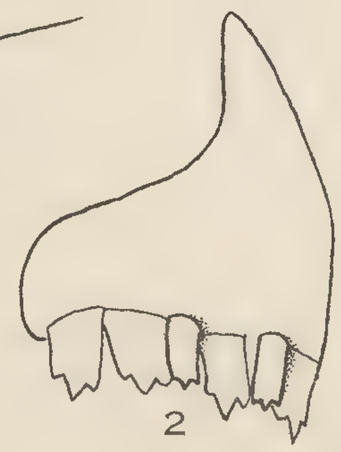
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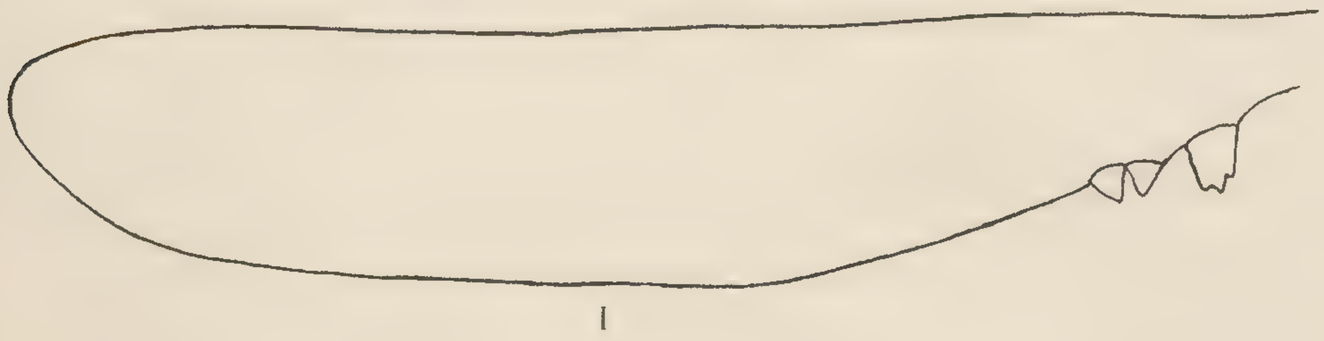

1

HELIOTYPE CO., BOSTON

PLATE 79.

PLATE 79.

Dentition.

Fig. 1. Hyphessobrycon lütkeni (Boulenger).
Maxillary. 9994 I. U. M.

Fig. 2. Hyphessobrycon inconstans (Eigenmann & Ogle).
Maxillary. 34591 U. S. N. M. (For premaxillary see Plate **78**, fig. 5).

Fig. 3. Hyphessobrycon santae (Eigenmann).
Maxillary.

Fig. 3a. Hyphessobrycon santae (Eigenmann).
Premaxillary.

Fig. 4. Hyphessobrycon anisitsi (Eigenmann).
Maxillary.

Fig. 5. Hyphessobrycon lütkeni (Boulenger).
Maxillary. 4890 I. U. M.

Fig. 6. Hyphessobrycon riddlei (Meek).
Maxillary.

Fig. 7. Hyphessobrycon gracilis (Reinhardt).
Maxillary.

Fig. 8. Hyphessobrycon bellottii (Steindachner).
Maxillary.

Fig. 9. Hyphessobrycon bentosi Durbin.
Maxillary.

Fig. 9a. Hyphessobrycon bentosi Durbin.
Premaxillary.

Fig. 10. Hyphessobrycon heterorhabdus (Ulrey).
Maxillary.

Fig. 11. Hyphessobrycon copelandi Durbin.
Maxillary.

Fig. 11a & b. Hyphessobrycon copelandi Durbin.
Premaxillary and mandible.

Fig. 12. Hyphessobrycon serpae Durbin.
Maxillary.

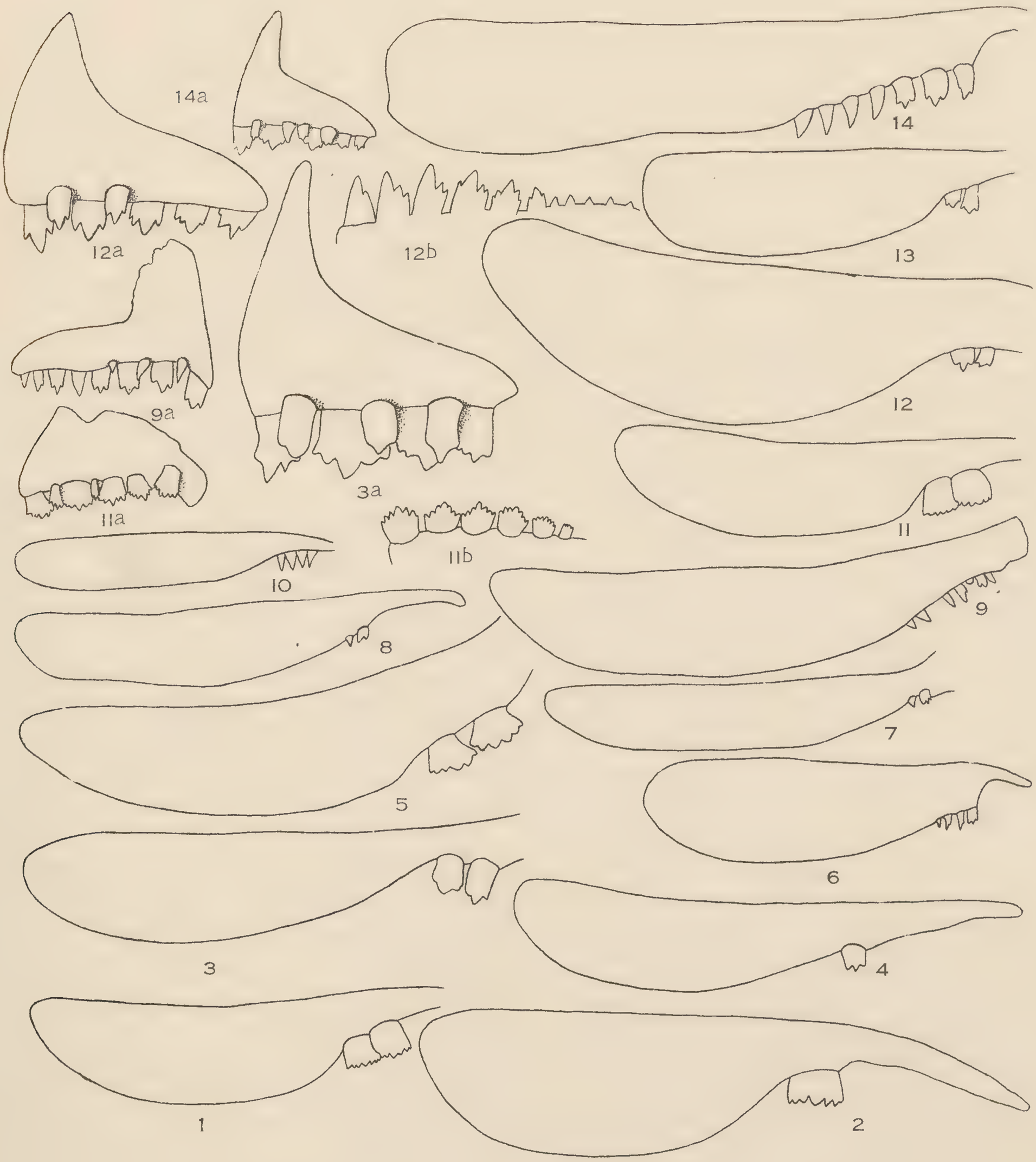
Fig. 12a. Hyphessobrycon serpae Durbin.
Premaxillary.

Fig. 12b. Hyphessobrycon serpae Durbin.
Mandibulary teeth.

Fig. 13. Hyphessobrycon callistus (Boulenger).
Maxillary.

Fig. 14. Hyphessobrycon compressus (Meek).
Maxillary.

Fig. 14a. Hyphessobrycon riddlei (Meek).
Premaxillary.



HELIOTYPE CO., BOSTON

PLATE 80.

PLATE 80.

Dentition.

Thayeria obliqua Eigenmann.

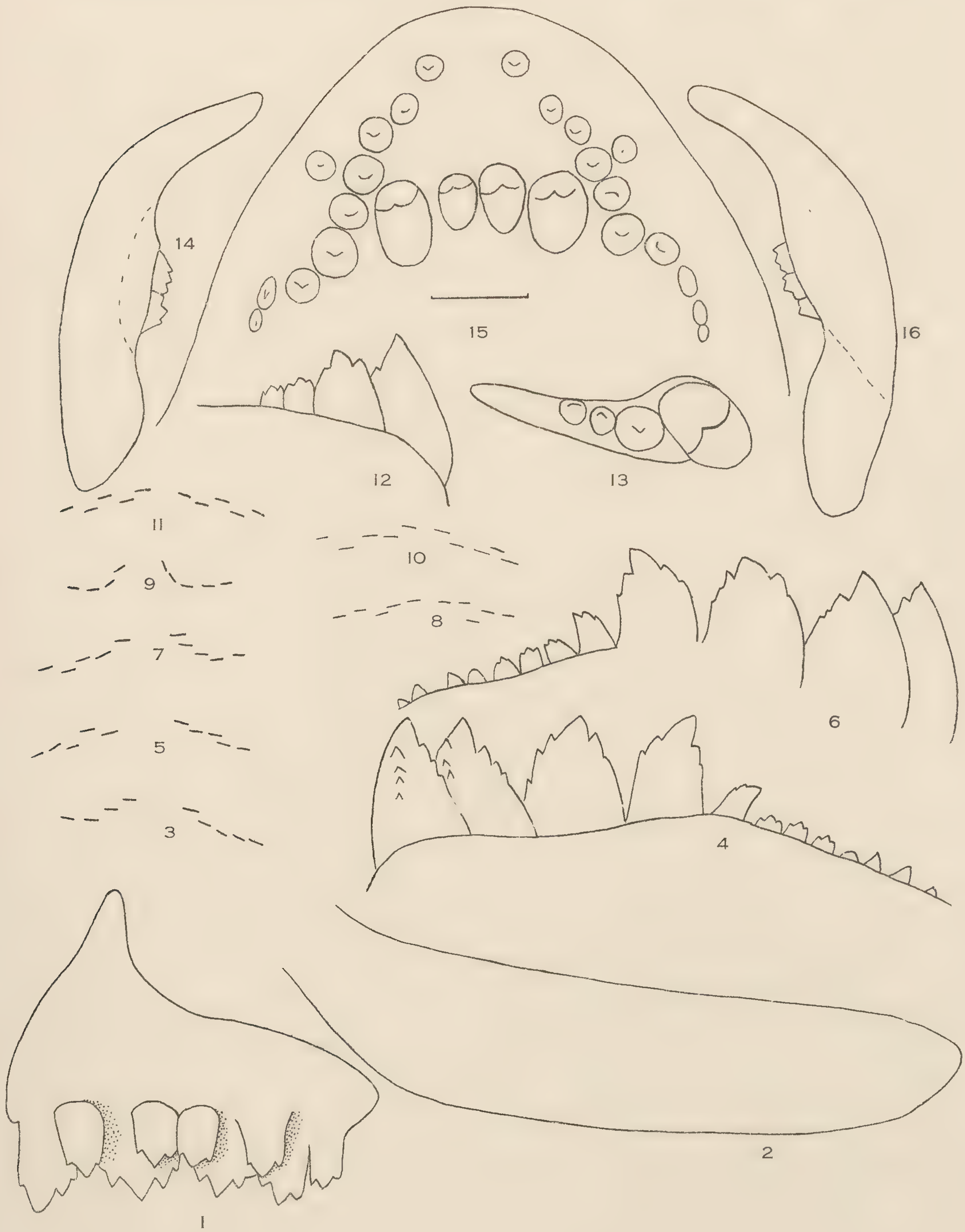
Fig. 1. Premaxillary.
Fig. 2. Maxillary.
Fig. 4. Mandibulary teeth from within.
Fig. 6. Mandibulary teeth from without.

Hemibrycon dentatus Eigenmann.

Fig. 3. } arrangement of the teeth in the first row of the premaxillary in seven different specimens.
Fig. 5. } Piedra Moler, Colombia.
Fig. 7–11. } (See also Plate **76**).

Creagrutus magdalenae Eigenmann.

Fig. 12. Mandibulary teeth from the side.
Fig. 13. Mandibulary teeth from above.
Fig. 14. Right maxillary.
Fig. 15. Premaxillary teeth from below.
Fig. 16. Left maxillary.

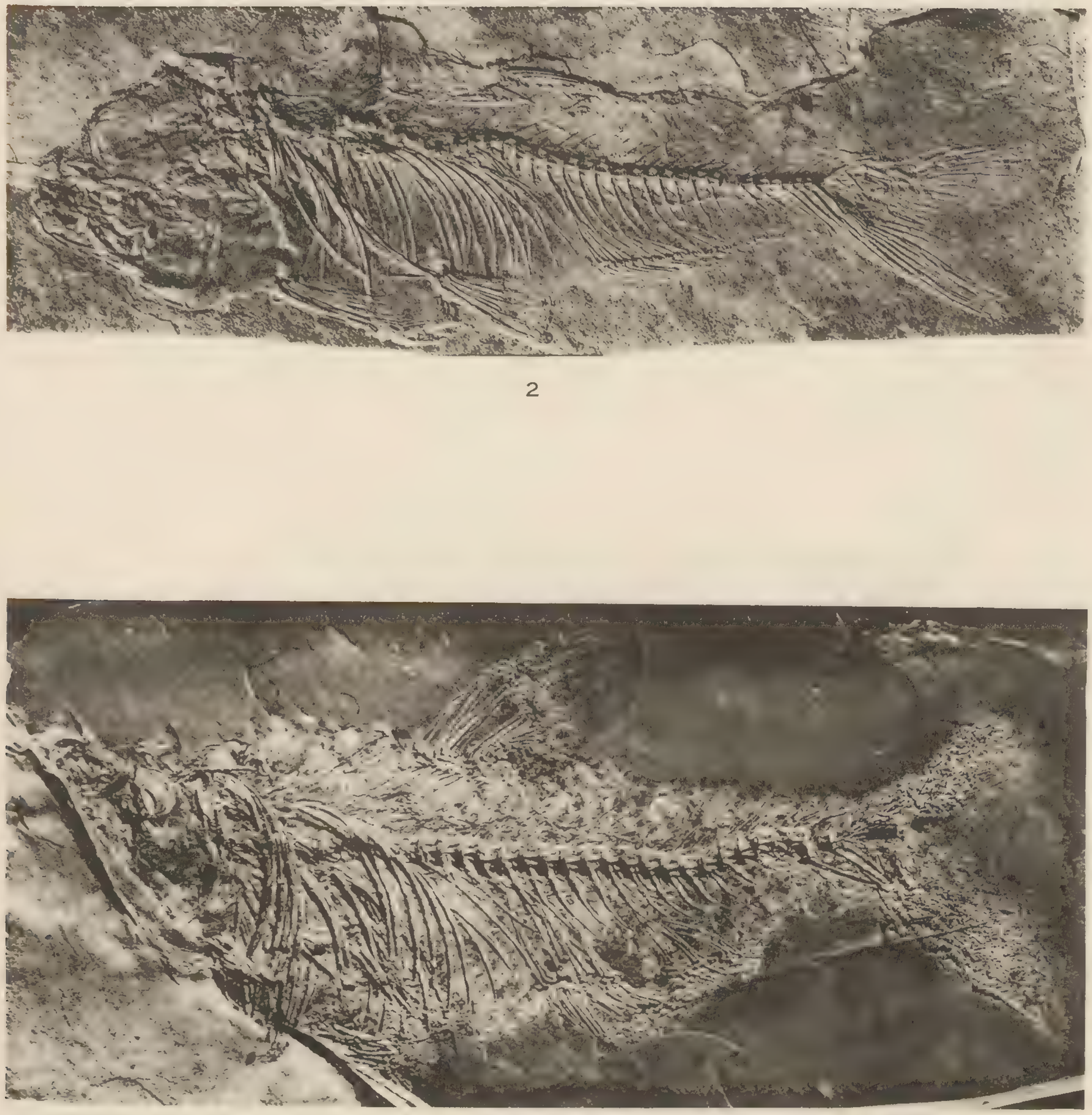


HELIOTYPE CO., BOSTON

PLATE 81.

PLATE 81.

Fig. 1–2. Eobrycon branneri Eigenmann.
(*Type* (1) and paratype (2).)



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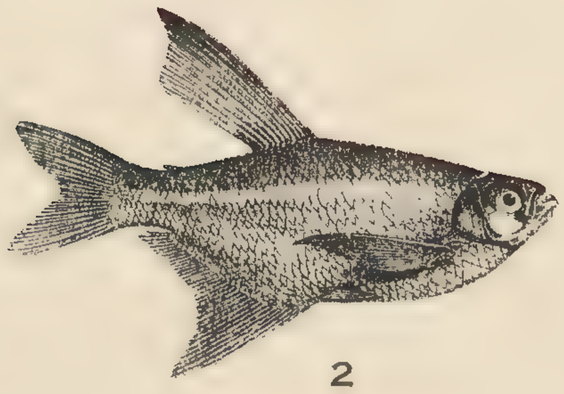
HELIOTYPE CO., BOSTON

PLATE 82.

PLATE 82.

Fig. 1. Pseudocorynopoma doriae Perugia. ♀
Fig. 2. Pseudocorynopoma doriae Perugia (after Steindachner). ♂
Fig. 3. Pseudocorynopoma doriae (after Perugia). ♂
Fig. 4. Pseudocorynopoma doriae Perugia. ♂

4



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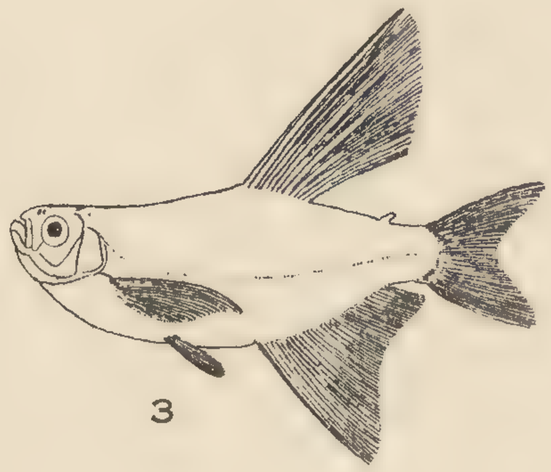

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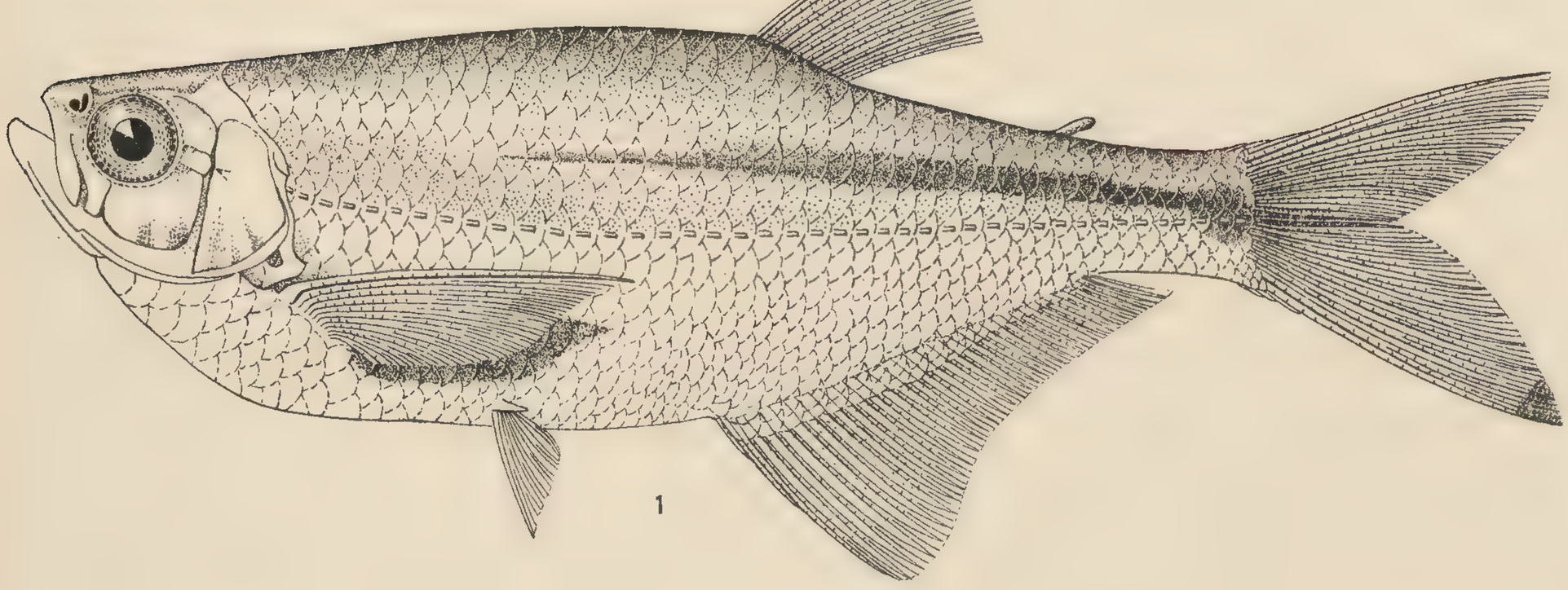

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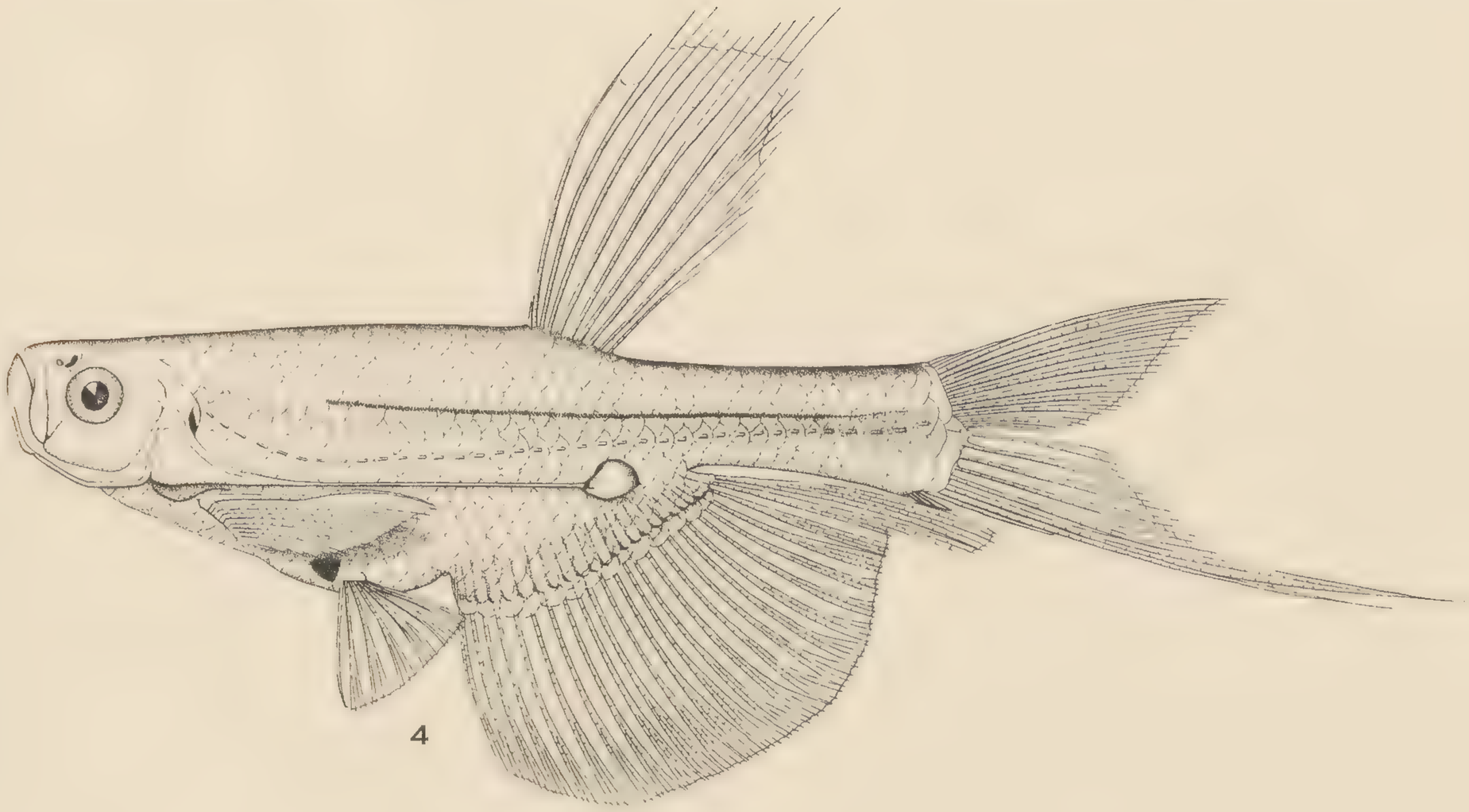
HELIOTYPE CO., BOSTON

PLATE 83.

PLATE 83.

Fig. 1. Pseudocorynopoma heterandria Eigenmann. ♂
Fig. 2. Corynopoma riisei Gill ♀
Fig. 3. Corynopoma riisei Gill ♂
Fig. 4. Corynopoma aliata (Eigenmann). ♂



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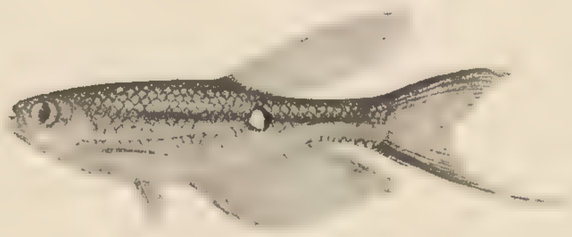

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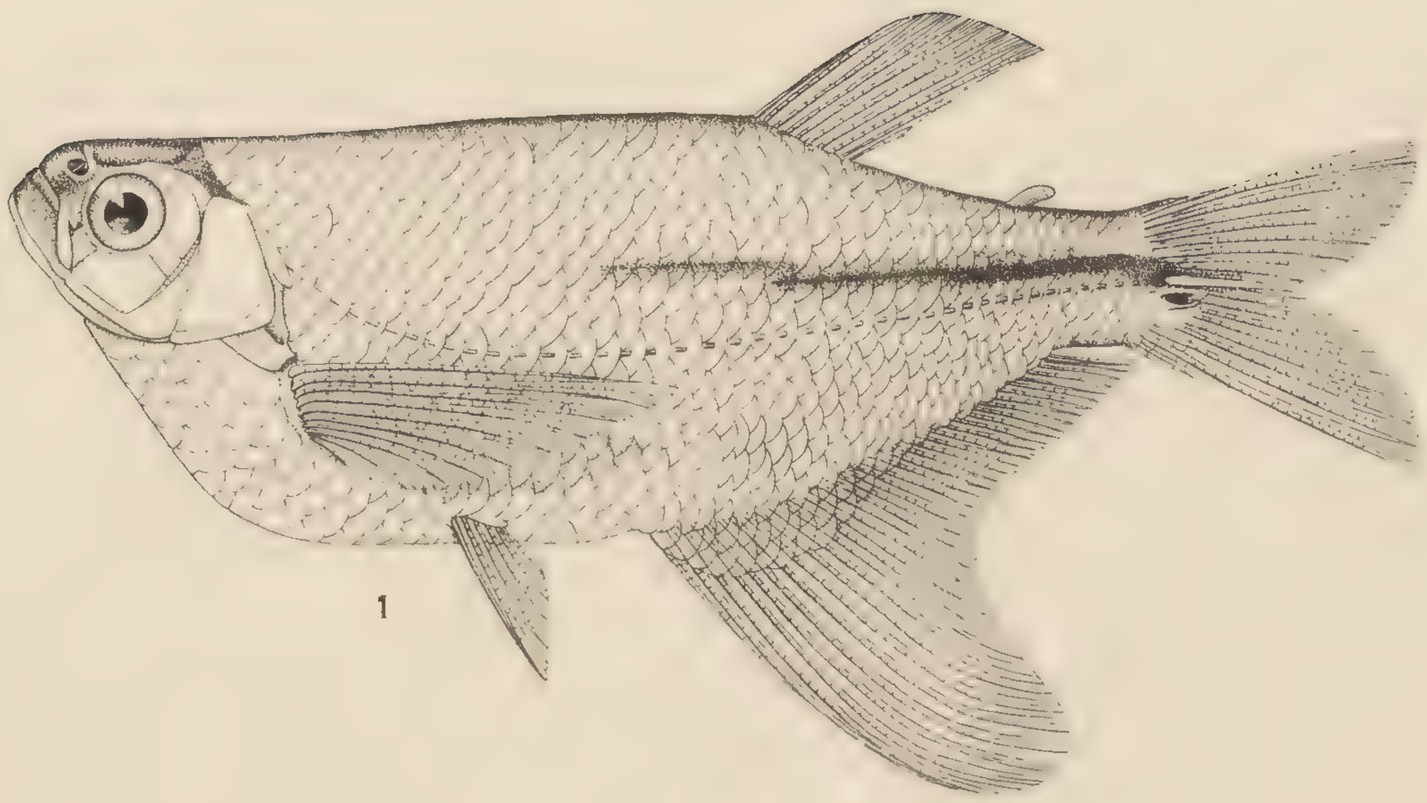

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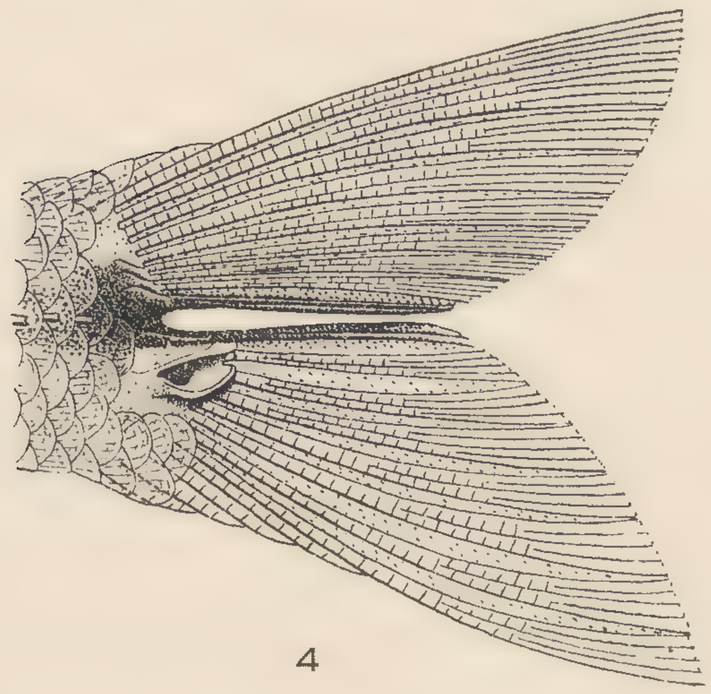
HELIOTYPE CO., BOSTON

PLATE 84.

PLATE 84.

Fig. 1. Corynopoma aliata (Eigenmann).
Caudal and caudal scales.
Fig. 2. Landonia latidens Eigenmann & Henn.
Caudal and caudal scales of male.
Fig. 3. Landonia latidens Eigenmann & Henn.
Anterior part of the anal fin.
Fig. 4. Pseudocorynopoma heterandria Eigenmann.
Caudal and caudal scales of male.
Fig. 5. Pseudocorynopoma doriae Perugia.
Caudal scales of male.



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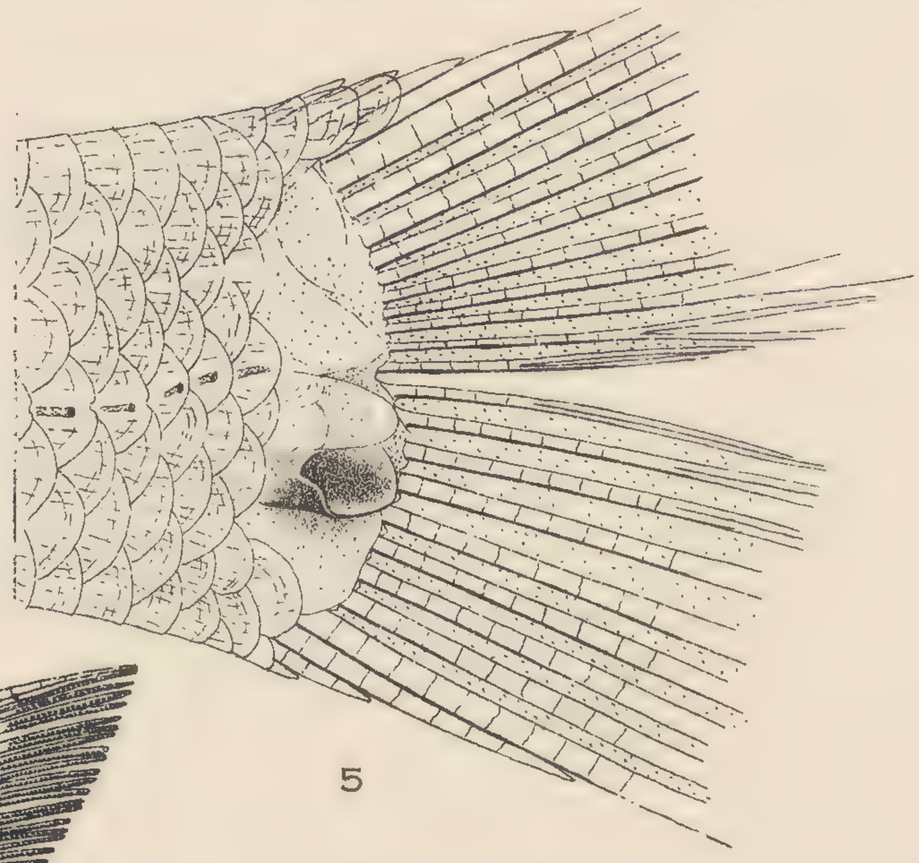

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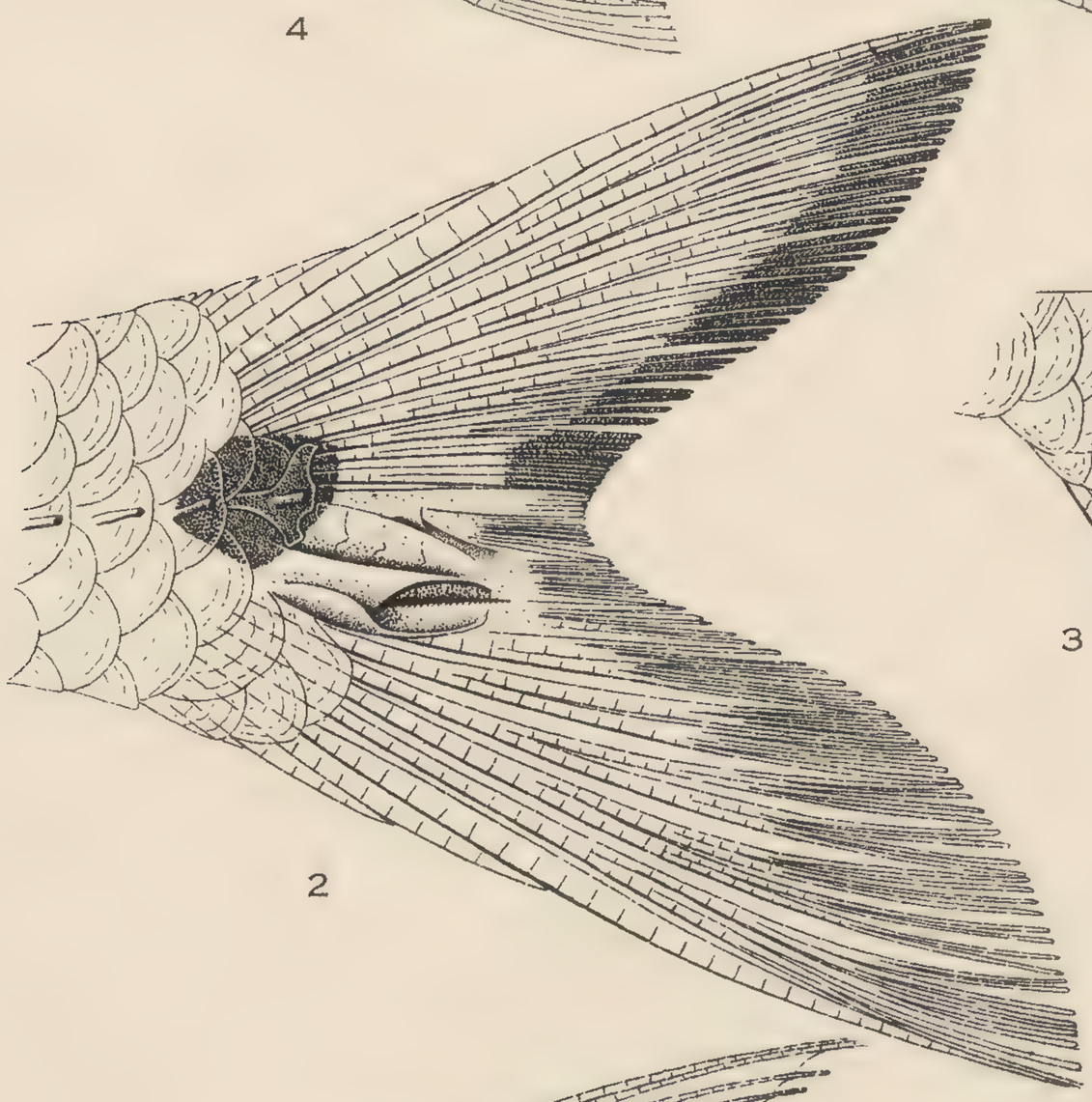

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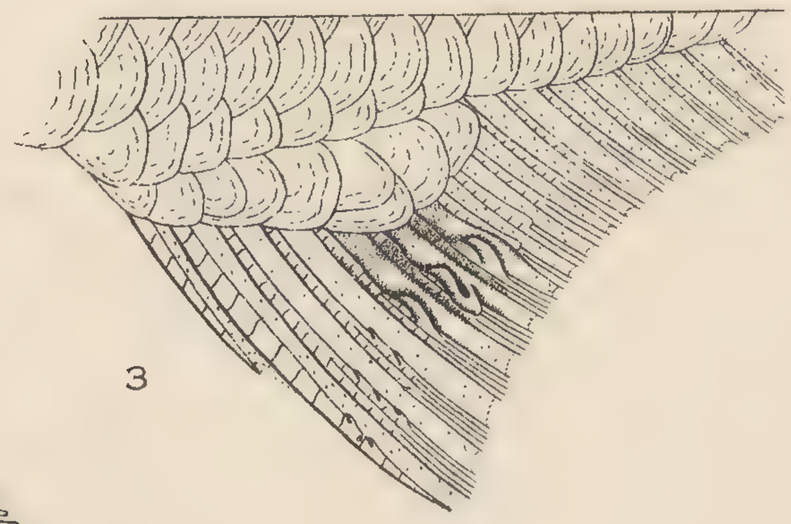

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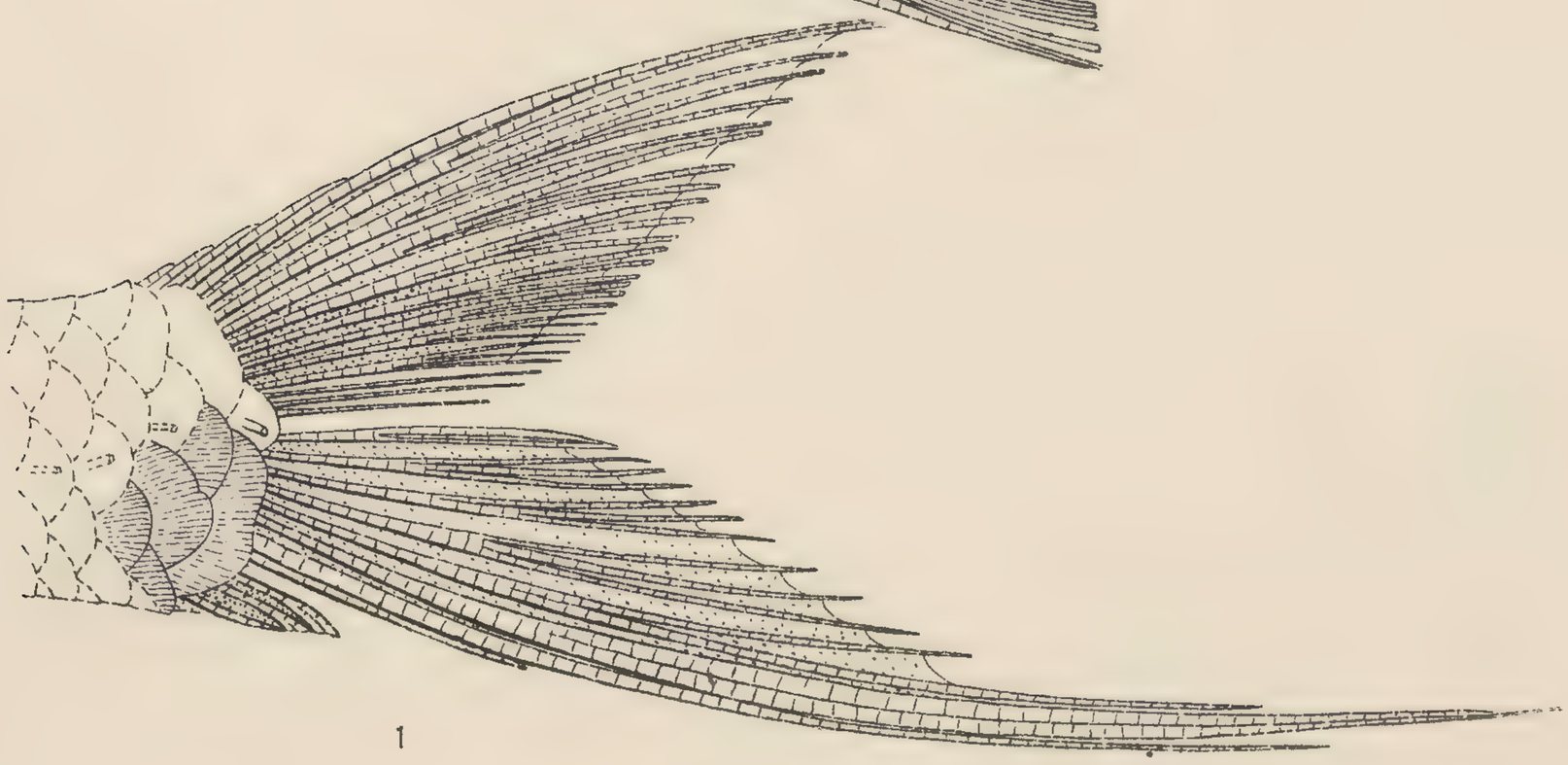

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HELIOTYPE CO., BOSTON

PLATE 85.

PLATE 85.

(Proc. Academy nat. sci. Philadelphia, 1907).

Fig. 1. Hemibrycon ipanquianus (Cope).
21114 Phila. Academy. 97 mm. *Type.* Urubamba.
Fig. 2. Astyanax longior (Cope).
21222 Phila. Academy. 79 mm. *Type.* Peruvian Amazon.
Fig. 3. Bryconamericus phoenicopterus (Cope).
8092 Phila. Academy. Length about 57 mm. *Type.* Ambyiacu.
Fig. 4. Bryconamericus diaphanus (Cope).
21216 Phila. Academy. 52 mm. *Type.* Peruvian Amazon.

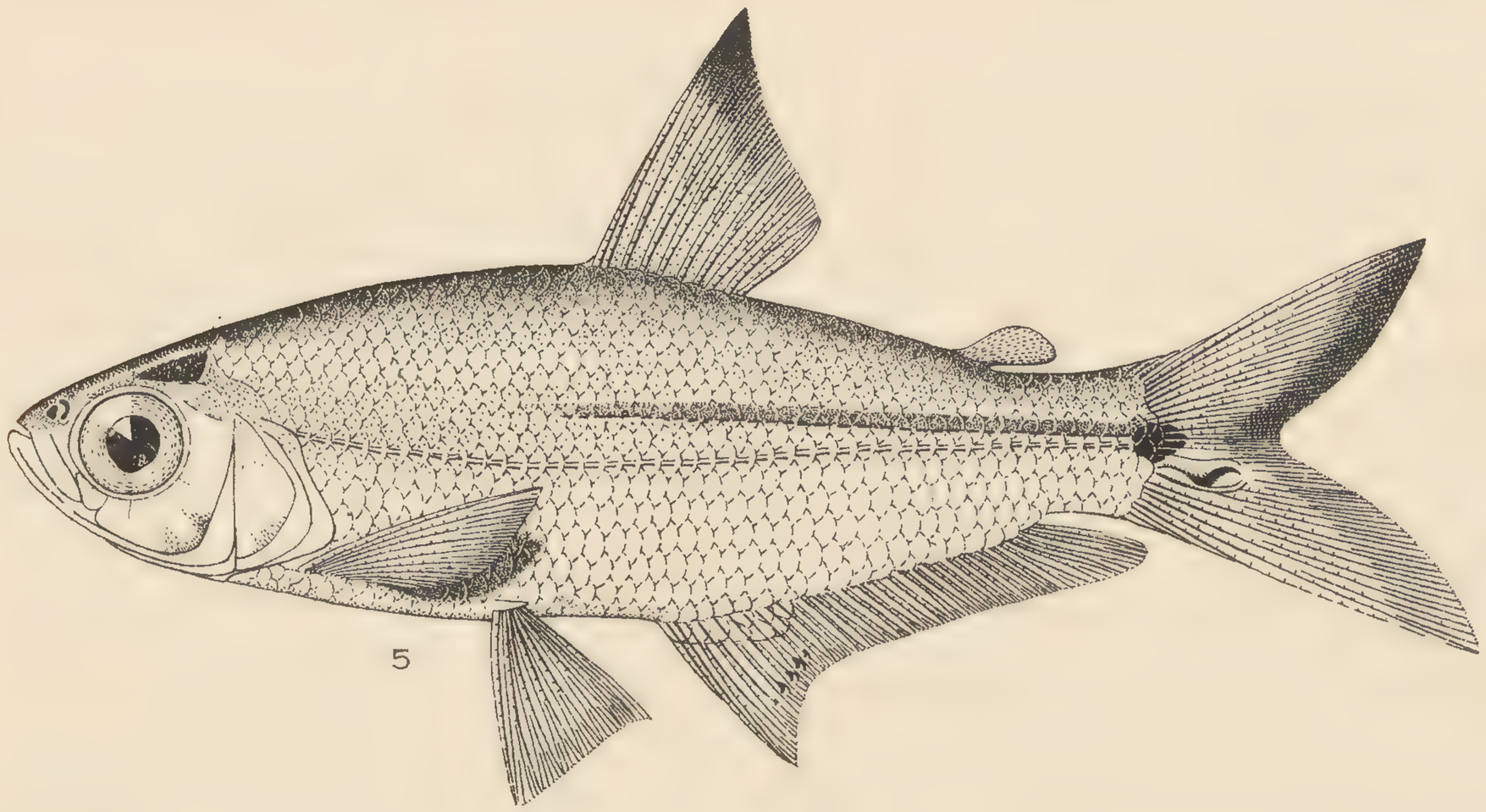
HELIOTYPE CO., BOSTON

PLATE 86.

PLATE 86.

Landonia latidens Eigenmann & Henn.

Fig. 1. 5408 C. M. 55 mm. ♀. *Type.* Vinces, Ecuador.
Fig. 2. Mandibular dentition.
Fig. 3. Premaxillary dentition.
Fig. 4. Maxillary dentition.
Fig. 5. 13100 I. U. M. 50 mm. (♀.) *Paratype.* Vinces, Ecuador.



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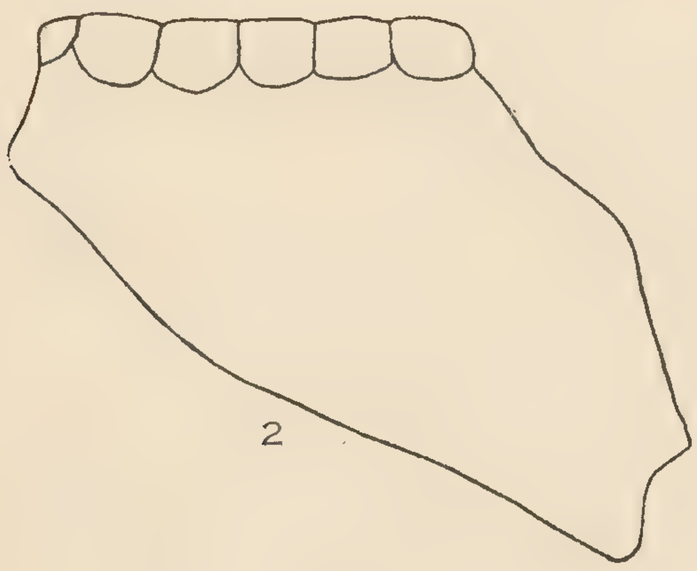

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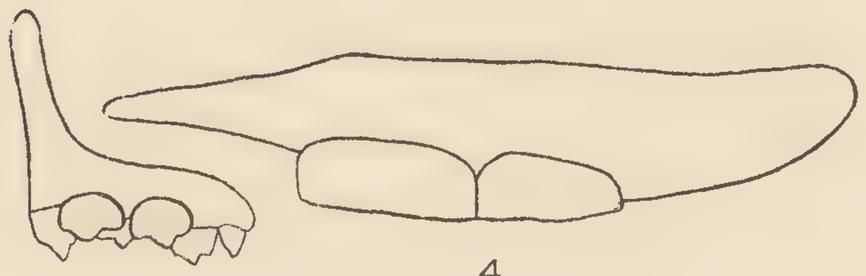

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HELIOTYPE CO., BOSTON

PLATE 87.

PLATE 87.

Fig. 1–3. Astyanax maximus (Steindachner). (Sitzb. K. akad. wiss. Wien, **72**, pl. 7.)
Fig. 4. Astyanax metae Eigenmann.
13371 I. U. M. 140 mm. Barrigon, Colombia.

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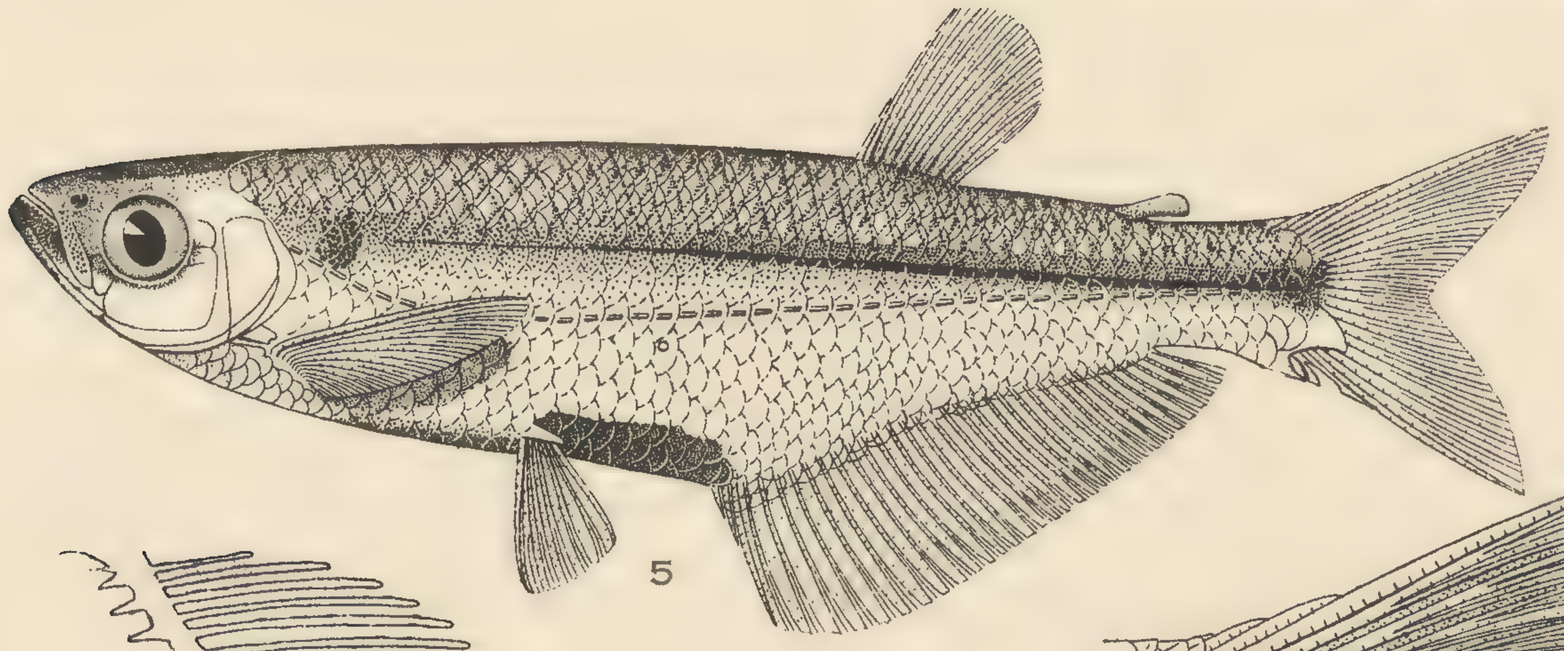
HELIOTYPE CO., BOSTON

PLATE 88.

PLATE 88.

Fig. 1. Hemibrycon colombianus Eigenmann.
5470 C. M. 106 mm. *Type.* Rio San Gil, Colombia.
Fig. 2. Ceratobranchia obtusirostris Eigenmann.
13154 I. U. M. 65 mm. *Type.* Chanchamayo River, Peru.
Fig. 3. Ceratobranchia obtusirostris Eigenmann.
Reversed right gill-arch.
Fig. 4. Gephyrocharax caucanus Eigenmann.
Caudal of male (enlarged).
Fig. 5. Gephyrocharax caucanus Eigenmann.
12670 I. U. M. 53 mm. ♂. Cali, Colombia.



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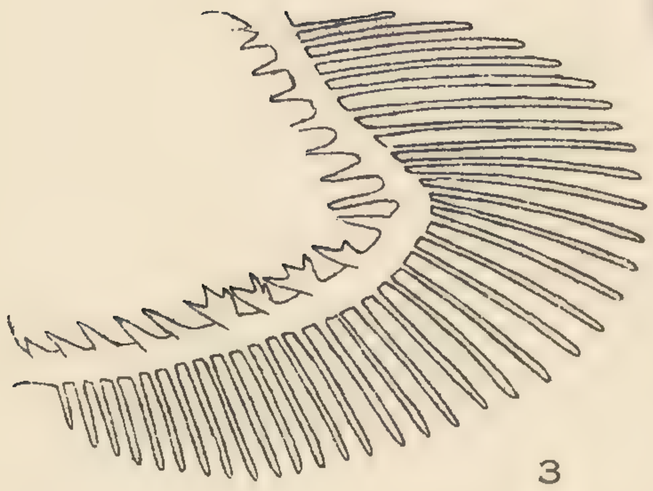

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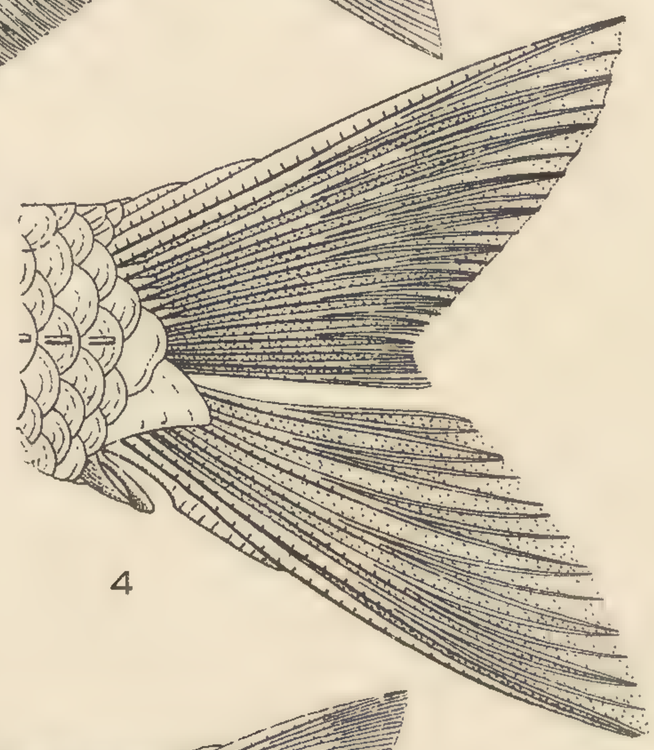

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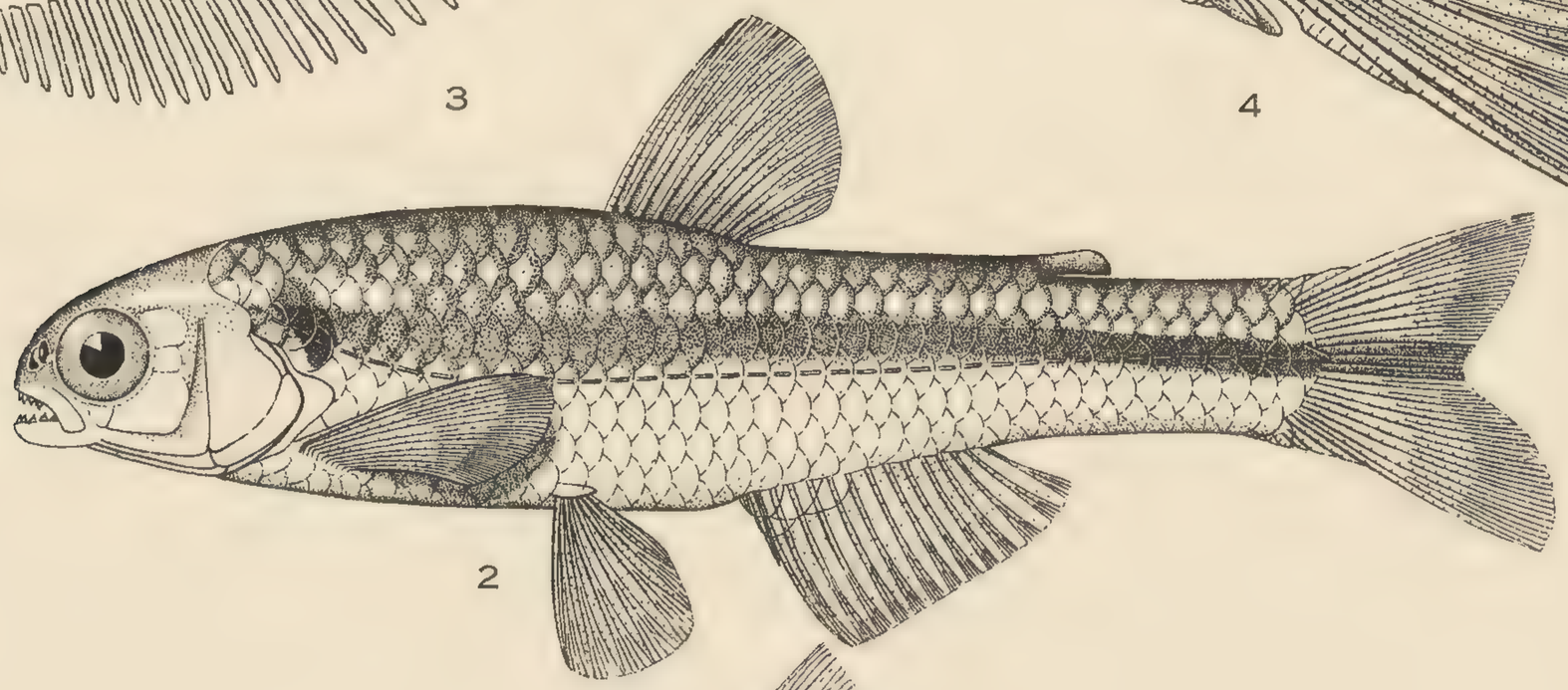

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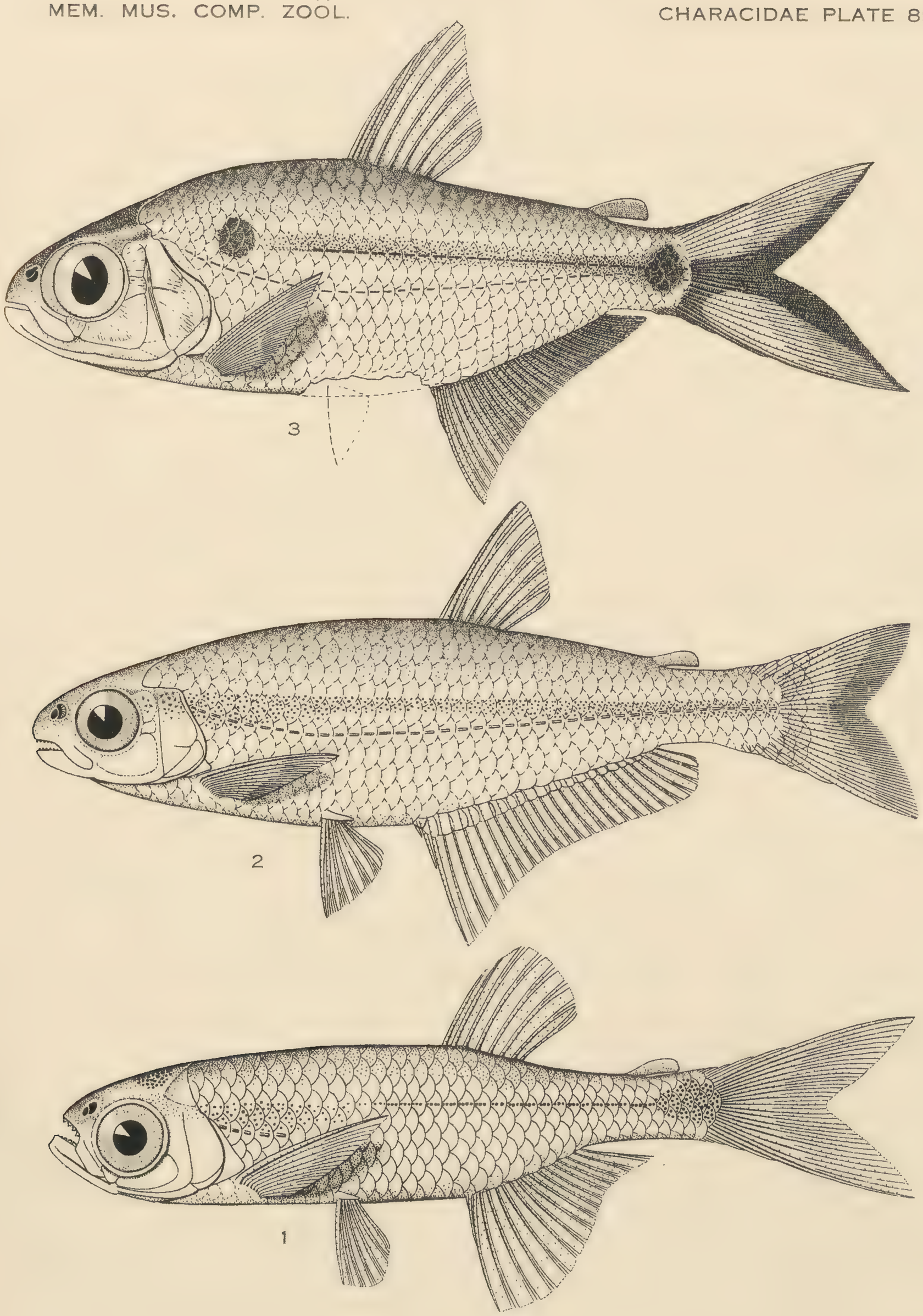
HELIOTYPE CO., BOSTON

PLATE 89.

PLATE 89.

Fig. 1. Microbrycon minutus Eigenmann and Wilson.
5422 C. M. 24 mm. *Type.* Truando, Colombia.
Fig. 2. Piabina analis Eigenmann.
5478 C. M. About 37 mm. *Type.* Caceres, Brazil.
Fig. 3. Astyanax fasciatus heterurus Eigenmann.
5392 C. M. 50 mm. *Type.* Truando, Colombia.



HELIOTYPE CO., BOSTON

PLATE 90.

PLATE 90.

Fig. 1. Phenacobrycon henni (Eigenmann).
13102 I. U. M. 46 mm. ♀. Vinces, Ecuador.
Fig. 2. Phenacobrycon henni (Eigenmann).
5410 C. M. 48 mm. *Type* ♂. Vinces, Ecuador.
Fig. 3. Bryconamericus iheringii (Boulenger).
3562 C. M. 57 mm. Rio Jacuhy, Brazil.
Fig. 4. Bryconamericus iheringii (Boulenger).
3564 C. M. 72 mm. Cacequy, Brazil.

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HELIOTYPE CO., BOSTOM

PLATE 91.

PLATE 91.

Fig. 1. Bryconamericus alpha Eigenmann.
5463 C. M. 59 mm. *Type.* Villavicencio, Colombia.
Fig. 2. Bryconamericus beta Eigenmann.
5465 C. M. 57 mm. *Type.* Villavicencio, Colombia.
Fig. 3. Bryconamericus deuterodonoides Eigenmann.
5461 C. M. 43 mm. *Type.* Villavicencio, Colombia.
Fig. 4. Bryconamericus cismontanus Eigenmann.
5459 C. M. 60 mm. *Type.* Villavicencio, Colombia.

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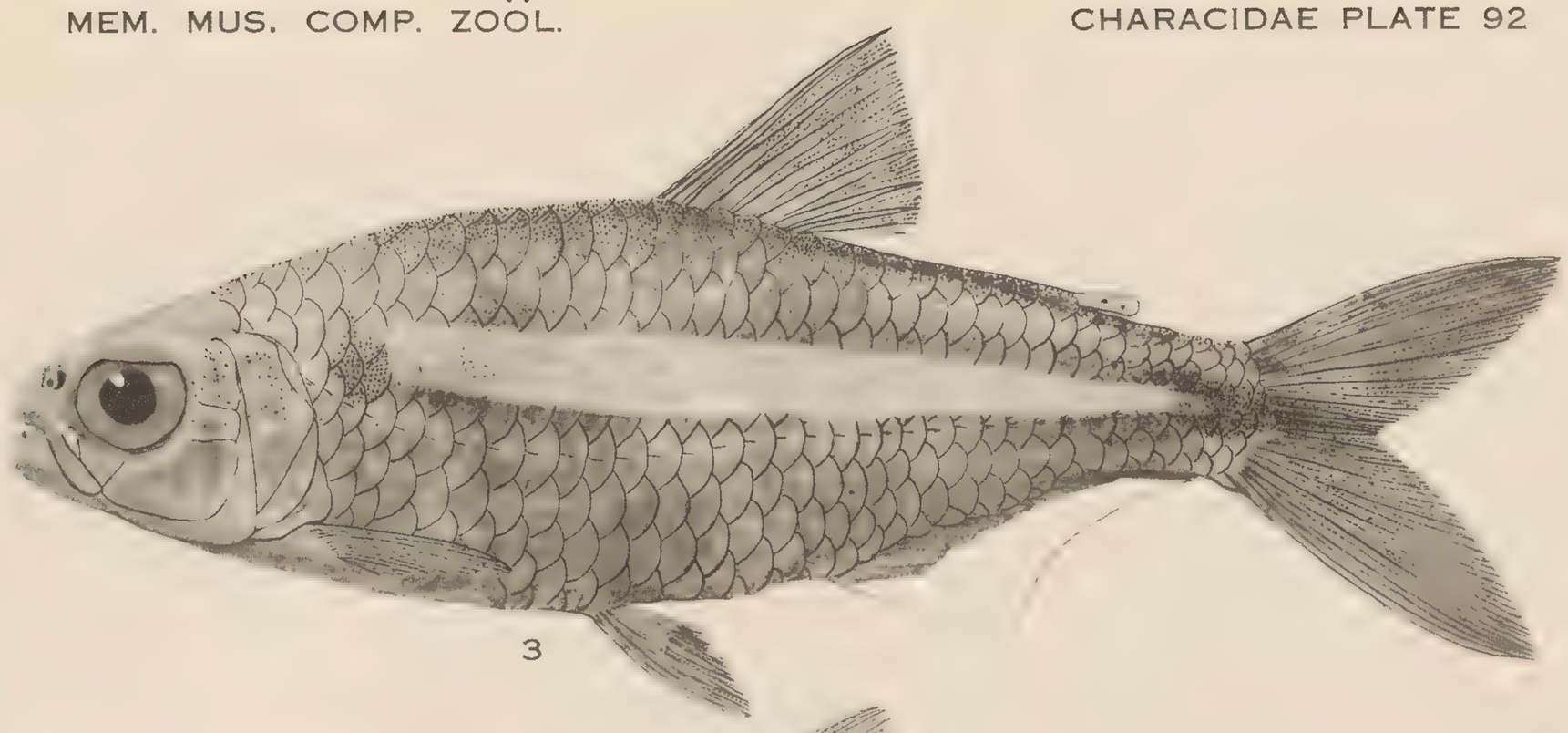
HELIOTYPE CO., BOSTOM

PLATE 92.

PLATE 92.

Fig. 1. Astyanax bimaculatus paraguayensis Eigenmann.
3281 C. M. 96 mm. Sapucay, Paraguay.
Fig. 2. Astyanax hasemanni Eigenmann.
5476 C. M. About 55 mm. *Type.* Porto Alegre, Southeastern Brazil.
Fig. 3. Bryconamericus novae Eigenmann & Henn.
3568 C. M. 58 mm. *Type.* Below Cachoeira da Velha de Rio Nova, Brazil.



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HELIOTYPE CO., BOSTON

PLATE 93.

PLATE 93.

Fig. 1. Bryconamericus brevirostris (Günther).
13123 I. U. M. 82 mm. Colimes, Ecuador.
Fig. 2. Hemigrammus barrigonae Eigenmann & Henn.
13423 I. U. M. 41 mm. *Type.* Barrigona, Colombia.
Fig. 3. Hyphessobrycon metae Eigenmann & Henn.
13421 I. U. M. 34 mm. *Type.* Barrigona, Colombia.
Fig. 4. Creagrutus beni Eigenmann.
Premaxillary and maxillary teeth. 3216 C. M. *Type.* Rio Beni, Bolivia.
Fig. 5. Creagrutus beni Eigenmann.
Premaxillary and maxillary teeth. Quevrada Gramalote, Villacencio, Colombia.
Fig. 6. Hyphessobrycon ecuadoriensis Eigenmann & Henn.
13105a I. U. M. 31 mm. Vinces, Ecuador.
Fig. 7. Creagrutus beni Eigenmann.
13373 I. U. M. 66 mm. Barrigona, Colombia.

HELIOTYPE CO., BOSTON

PLATE 94.

PLATE 94.

Fig. 1. Henochilus wheatlandii Garman.
Fig. 2. Psalidodon gymnodontus Eigenmann.
Fig. 3–4. Rhoadsia altipinnis Fowler.

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HELIOTYPE CO., BOSTON

PLATE 95.

Fig. 1. Astyanax fasciatus (Cuvier).
12739 I. U. M. 162 mm. Quibdo, Colombia.

Fig. 2. Phenacogaster megalostictus Eigenmann.
11746 I. U. M. 63 mm. Tumatumari, British Guiana.

Fig. 3. Moenkhausis dichroura (Kner).
11862 I. U. M. 60 mm. Konawaruk, British Guiana.

Fig. 4. Moenkhausia oligolepis (Günther).
11836 I. U. M. 114 mm. Aruataima, British Guiana.

Fig. 5. Astyanax festae (Boulenger).
13119 I. U. M. Largest, 67 mm. Puertoviejo, Ecuador.

Fig. 6. Astyanax bimaculatus (Linné).
11308 I. U. M. 134 mm. Trinidad.

Fig. 7. Deuterodon iguape Eigenmann.
11636 I. U. M. 112 mm. Raiz da Serra, Southeastern Brazil.

Fig. 8. Hollandichthys multifasciatus (Eigenmann & Norris).
13297 I. U. M. 105 mm. Raiz da Serra, Southeastern Brazil.

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HELIOTYPE CO., BOSTON

PLATE 96.

PLATE 96.

Fig. 1. Ceratobranchia binghami Eigenmann.
31561 M. C. Z. 53 mm. *Type.* Santa Ana, Peru.
Fig. 2. Hemibrycon helleri Eigenmann.
13565 M. C. Z. 100 mm. *Type.* Rio Comberciato, Peru.
Fig. 3. Hemibrycon tridens Eigenmann.
13723 I. U. M. 65 mm. *Type.* Uruhuasi, Peru.

HELIOTYPE CO. BOSTON

PLATE 97.

PLATE 97.

Fig. 1. Hemibrycon tolimae (Eigenmann).
Fig. 2. Bryconamericus scopiferus (Eigenmann).
Fig. 3. Gephyrocharax chocoensis Eigenmann.
Fig. 4. Argopleura magdalenensis Eigenmann.
Fig. 5. Pseudiconynopoma heterandria Eigenmann.
Fig. 6. Glandulocauda melanogenys Eigenmann.
Fig. 7. Landonia latidens Eigenmann & Henn.
Fig. 8. Nematobrycon palmeri Eigenmann.
Fig. 9. Piabina argentea (Reinhardt).
Fig. 10. Nematobrycon palmeri Eigenmann.
Fig. 11. Nematobrycon palmeri Eigenmann.
Fig. 12. Thoracocharax maculatus (Steindachner).
Fig. 13. Creagrutus affinis Steindachner.
Fig. 14. Iguanodectes tenuis Cope.
Fig. 15. Piabucus dentatus (Koelreuter).

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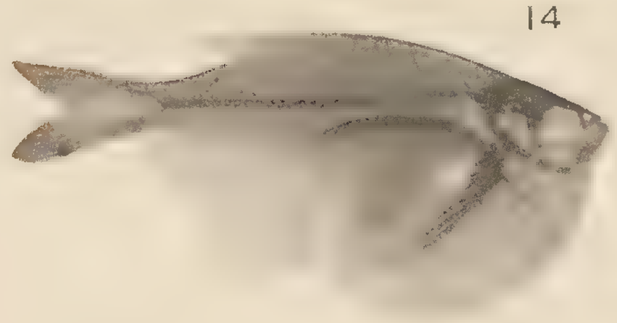

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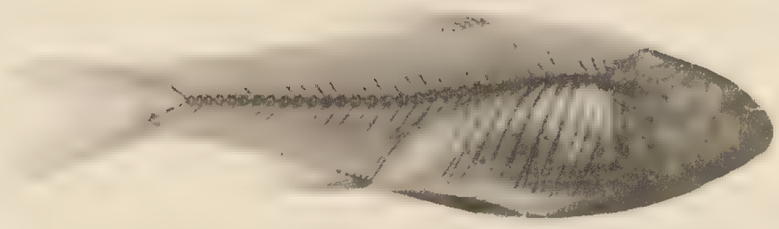

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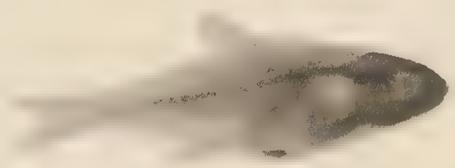

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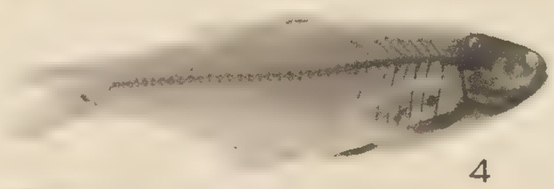

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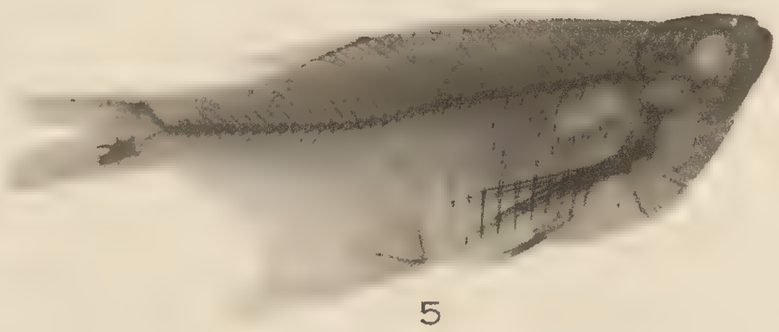

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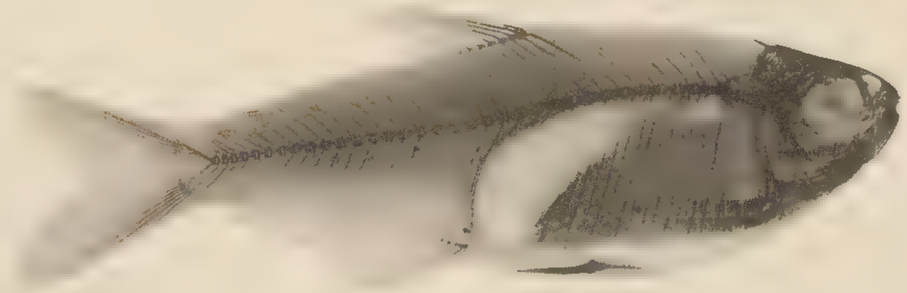

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HELIOTYPE CO., BOSTON

PLATE 98.

PLATE 98.

Fig. 1. Creatochanes melanurus (Bloch).
11887 I. U. M. 136 mm. Wismar, British Guiana.

Fig. 2. Genycharax tarpon Eigenmann.
12674 I. U. M. 135 mm. Cali, Colombia.

Fig. 3. Stichanodon insignis (Steindachner).
20803 M. C. Z. 65 mm. Manacapuru, Brazil.

Fig. 4. Tetragonopterus chalceus Agassiz.
11855 I. U. M. 85 mm. Crabs Falls, British Guiana.

Fig. 5. Ephippicharax orbicularis (Cuvier & Valenciennes).
12212 I. U. M. 82 mm. Rockstone, British Guiana.

Fig. 6. Stethaprion erythrops Cope.
19268 M. C. Z. 94 mm. Jutahy, Brazil.

Fig. 7. Ctenobrycon hauxwellianus (Cope).
20814 M. C. Z. 84 mm. Içá, Brazil.

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HELIOTYPE CO., BOSTON

PLATE 99.

PLATE 99.

Fig. 1. Bryconamericus alfredae Eigenmann.
31564 M. C. Z. 45 mm. *Type.* Santa Ana, Peru.
Fig. 2. Bryconamericus grosvenori Eigenmann.
31562 M. C. Z. 58 mm. *Type.* Santa Ana, Peru.
Fig. 3. Bryconamericus pachacuti Eigenmann.
31563 M. C. Z. 74 mm. *Type.* Santa Ana, Peru.

HELIOTYPE CO. BOSTON

PLATE 100.

PLATE 100.

Camera outlines of the heads.

Fig. 1. Moenkhausia barbouri Eigenmann.

Fig. 2. Moenkhausia costae (Steindachner).

Fig. 3. Moenkhausia dichroura (Kner).

Fig. 4. Moenkhausia melogramma Eigenmann.

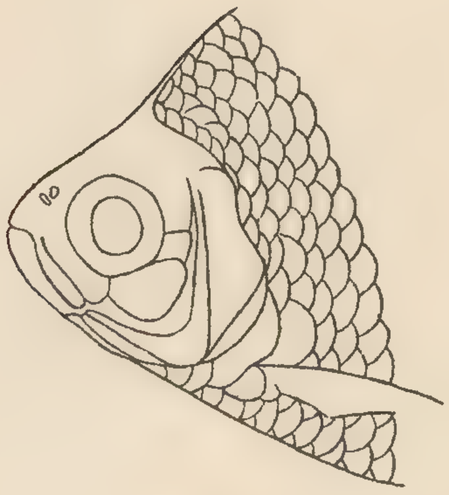
Fig. 5. Moenkhausia oligolepis (Günther).

Fig. 6. Moenkhausia grandisquamis (Müller and Troschel).

Fig. 7. Moenkhausia bondi Fowler.

Fig. 8. Moenkhausia jamesi Eigenmann.

Fig. 9, 10. Moenkhausia chrysargyrea (Günther).



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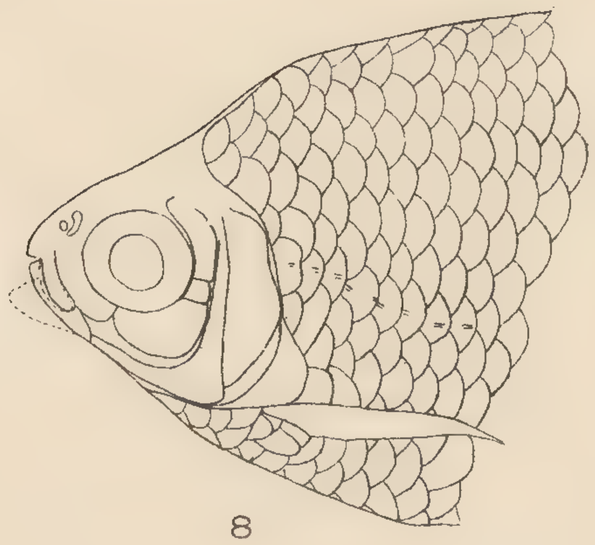

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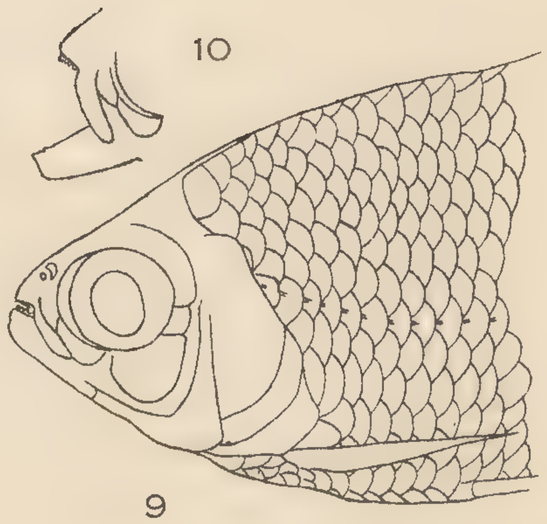

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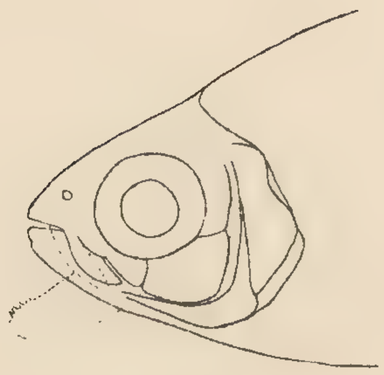

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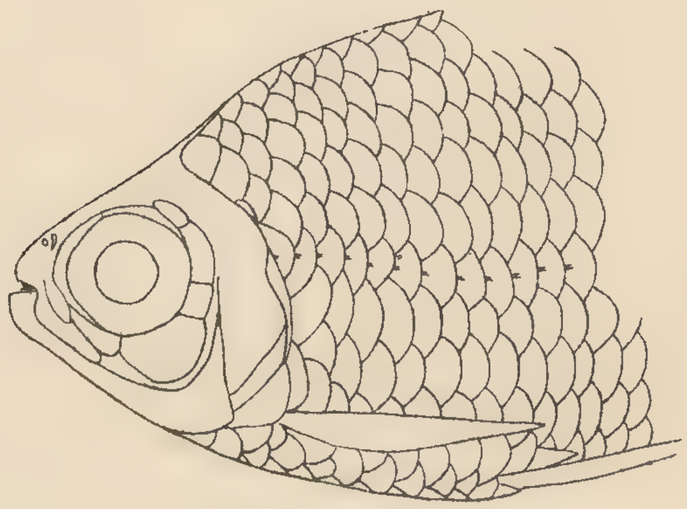

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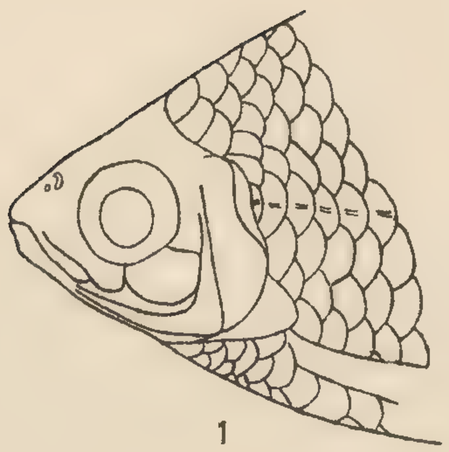

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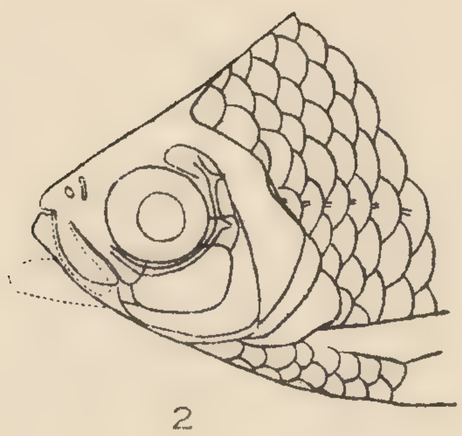

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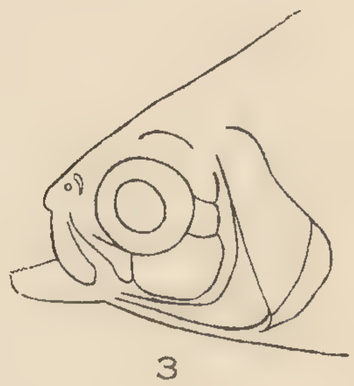

3

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PLATE 101.

PLATE 101.

Camera outlines of the heads.

Fig. 1. Moenkhausia ceros Eigenmann. *Type.*

Fig. 2. Moenkhausia cotinho Eigenmann. *Type.*

Fig. 3. Moenkhausia collettii (Steindachner).

Fig. 4. Moenkhausia copei (Steindachner).

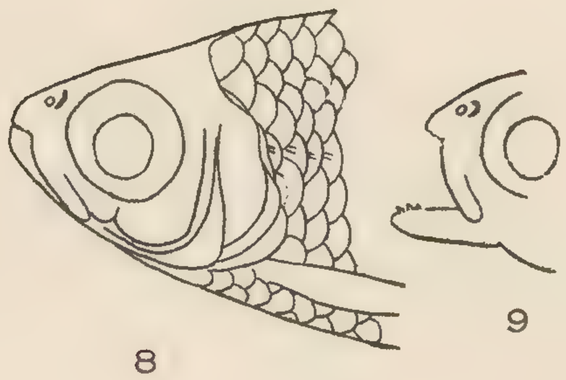
Fig. 5. Moenkhausia lepidura hasemani Eigenmann.

Fig. 6. Moenkhausia içae Eigenmann.

Fig. 7. Moenkhausia lepidura gracilima Eigenmann.

Figs. 8, 9. Moenkhausia intermedia Eigenmann.

Fig. 10. Moenkhausia lepidura lata Eigenmann.



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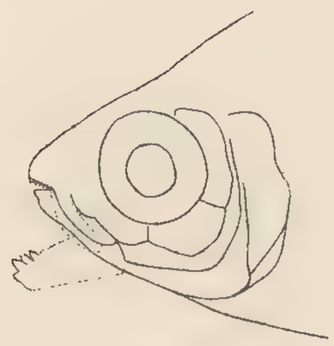

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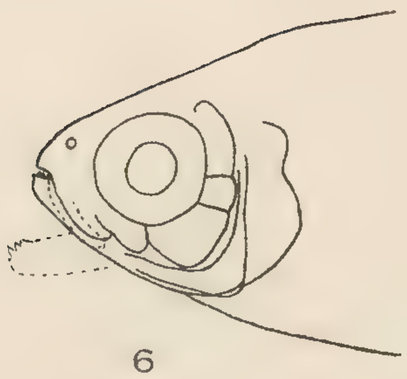

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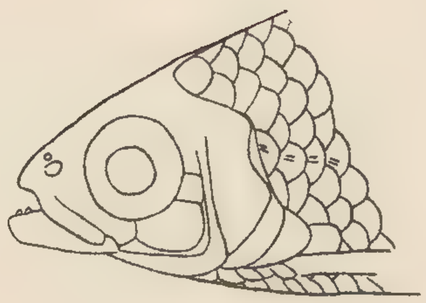

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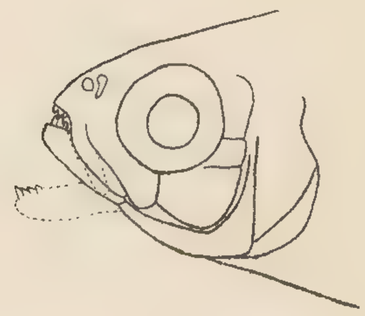

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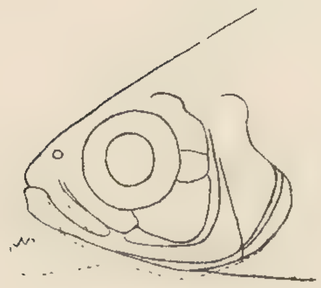

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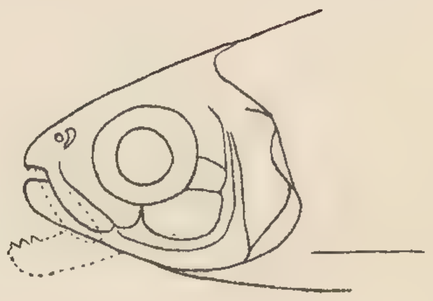

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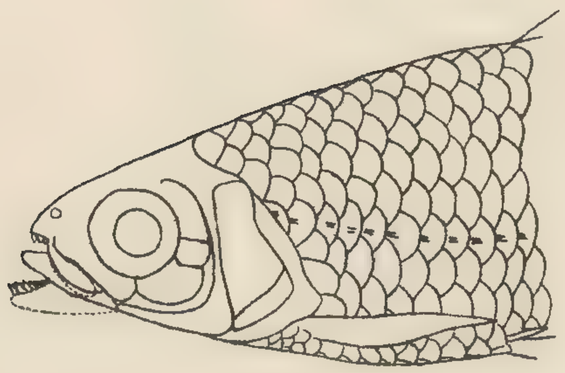

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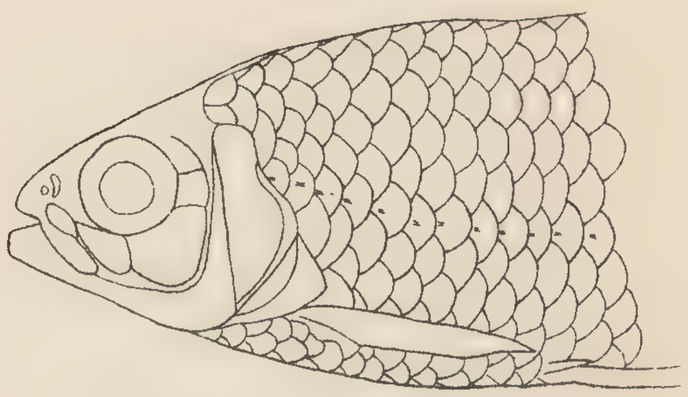

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